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Water Resources Data for Virginia, Water Year 1974 Part 1. Surface Water Records. Part 2. Water Quality Records. Part 3. Ground Water Records

(U.S.) Geological Survey, Richmond, VA. Water Resources Div.

1975

PB 289512

1974

Water Resources Data for Virginia

Water Year 1974

Part 1. Surface Water Records

Part 2. Water Quality Records

Part 3. Ground Water Records

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U.S. GEOLOGICAL SURVEY WATER-DATA REPORT VA-74-1

Prepared in cooperation with the State of Virginia
and with other agencies

CALENDAR FOR WATER YEAR 1974

1973

OCTOBER

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1974

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SEPTEMBER

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Water resources data for the 1974 water year for Virginia consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report contains discharge records for 187 gaging stations; stage and contents for 9 lakes and reservoirs; water quality for 23 gaging stations, water levels for 50 observation wells. Also included are 165 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating local, State, and Federal agencies in Virginia.

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Part 1. Surface Water Records
Part 2. Water Quality Records
Part 3. Ground Water Records

MARCH 3, 1849

UNITED STATES
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY WATER-DATA REPORT VA-74-1

Prepared in cooperation with the State of Virginia
and with other agencies

1a

Prepared in cooperation with

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Virginia Department of Highways and Transportation
City of Alexandria
County of Chesterfield
County of Fairfax
City of Newport News
City of Norfolk
City of Roanoke
City of Staunton
Corps of Engineers, U.S. Army
Tennessee Valley Authority
Water Quality Office, Environmental Protection Agency

Copies of this report may be obtained from

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U.S. Geological Survey
Room 304, 200 West Grace Street
Richmond, Virginia 23220

or

Virginia State Water Control Board
Suite 210, 1936 Arlington Blvd.
Charlottesville, Virginia 22903

1975

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[Letters after station name designate type of data: (c), chemical; (t), water temperature; (s), sediment]

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WATER RESOURCES DATA FOR VIRGINIA, 1974

PART 1. SURFACE-WATER RECORDS
PART 2. WATER-QUALITY RECORDS
PART 3. GROUND-WATER RECORDS

INTRODUCTION

Water resources data for the 1974 water year for Virginia, including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, records of water-quality data on the chemical and physical characteristics of surface water, and records of ground-water levels at index wells, are given in this report. In Part 1, records are included for 188 gaging stations of which 178 are streamflow discharge stations and 10 are reservoir or lake stations; also are included records for 165 crest-stage partial-record stations and 56 miscellaneous sites. Locations of gaging stations are shown in figure 3. Locations of partial-record stations are shown in figure 4. In Part 2, there are included data on the quality of surface water (chemical, temperature, and sediment) collected from designated sampling sites at predetermined intervals. Records are given for 23 sampling stations. Locations of water-quality stations are shown in figure 3. In Part 3, records are included for 52 wells. At 38 of these, the records were obtained from a water-level recorder that gave a continuous graph of the fluctuations while at 14, the records were from direct readings made on the days indicated. During the year, recorders were removed from 6 of the 38 recorder wells and further data were obtained from direct tape measurements. Locations of index wells are shown in figure 3. A few pertinent stations (not included above) in bordering States are also included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of W. E. Forrest, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Virginia.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records beginning with the 1964 water year have been similarly released either in separate reports or in conjunction with streamflow records. For some States, records of ground-water levels are similarly released. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and since then are in a 5-year series. Records of chemical quality, water temperatures, and suspended sediment have been published since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels are published in a series of water-supply papers entitled, "Ground-Water Levels in the United States." Through 1955 these were in an annual series but are now in a 5-year series. More information is given under the heading "Publications" on pages 11 and 14.

COOPERATION

The U.S. Geological Survey and organizations of the State of Virginia have had cooperative agreements for the systematic collection of streamflow records since 1925, for water-quality records from 1944 to 1956 and since 1967, and for records of ground-water levels from 1931 to 1956 and since 1967. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Virginia State Water Control Board, E. T. Jensen, executive secretary.
Virginia Department of Highways and Transportation, D. B. Fugate, comissioner.
City of Alexandria, Wayne F. Anderson, city manager.
County of Chesterfield, M. W. Burnett, county administrator.
County of Fairfax, Robert W. Wilson, county executive.
City of Newport News, J. M. Pharr, director, Department of Public Utilities, succeeded by Walter S. Grant, Jr.
City of Norfolk, Arthur C. Freeman, III, director of utilities.
City of Roanoke, B. E. Haner, city manager.
City of Staunton, E. D. Martin, city manager.

Assistance in the form of funds or services was given by the Corps of Engineers, U.S. Army, in collecting records for 65 gaging stations and 2 water-quality stations published in this report.

Under a cooperative agreement covering the Tennessee River basin, the Tennessee Valley Authority furnished financial assistance for the operation of 9 gaging stations, the records for which are published herein.

Assistance was also furnished by the Water Quality Office, Environmental Protection Agency.

The Appalachian Power Company and the City of Radford aided in collecting records.

Organizations that supplied data are acknowledged in station descriptions.

RECORDS COLLECTED BY THE STATE OF VIRGINIA

In addition to data collected by the U.S. Geological Survey, there are included herein records for 83 gaging stations and 33 index wells operated by agencies of the State of Virginia.

These records were computed and furnished by the State Water Control Board, E. T. Jensen, executive secretary, through the Bureau of Surveillance and Field Studies, M. A. Bellanca, director, for gaging stations, and for wells through the Bureau of Water-Control Management, D. F. Jones, director.

The records are published as furnished and are acknowledged individually.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, follow. See also table 3, "Factors for Converting English Units to International System (SI) Units" on page 19.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet, about 326,000 gallons, or 1,233 cubic metres.

Cfs-day, ft^3/s-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic metres. It represents a runoff of approximately 0.0372 inch from 1 square mile or 0.3468 millimetre from 1 square kilometre.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of channel.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area. One CFSM is equivalent to 0.01093 cubic metres per second per square kilometre, approximately.

Cubic foot per second (ft^3/s, CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute, or 0.02832 cubic metres per second.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time. If this discharge is reported instead of the daily mean, the heading of the discharge column in the tables is "Discharge (CFS)."

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the general term "stage," although gage height is more appropriate when used with a reading on a gage. The elevation of the water surface above mean sea level may be determined by adding the gage height to the datum of the gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Land surface datum (lsd) is a precise datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is a permanent point from which the distance to the water surface in a well is measured to obtain the water level.

Micrograms per litre (UG/L) is a unit expressing the concentration of chemical constituents in solution as the weight (micrograms) of solute per unit volume (litre) of water. One thousand micrograms per litre is equivalent to one milligram per litre.

Milligrams per litre (MG/L, mg/l) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per litre represents the weight of solute per unit volume of water. Milligrams or micrograms per litre may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per litre by multiplying by the factors in table 1. Concentration of suspended sediment also is expressed in mg/l and is based on the weight of sediment per litre of water-sediment mixture. In the range of concentration of suspended sediment reported herein, concentration expressed in parts per million is essentially equivalent to that in mg/l.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per litre to milliequivalents per litre based on 1961 atomic weights

Ion	Multiply by	Ion	Multiply by
Bicarbonate (HCO_3^{-1})..	0.01639	Nitrate (NO_3^{-1})......	0.01613
Calcium (Ca^{+2})........	.04990	Phosphate (PO_4^{-3})....	.03159
Chloride (Cl^{-1})........	.02821	Potassium (K^{+1})......	.02557
Fluoride (F^{-1})........	.05264	Sodium (Na^{+1})........	.04350
Iron (Fe^{+3})*..........	.05372	Sulfate (SO_4^{-2})......	.02082
Magnesium (Mg^{+2})......	.08226		

* Constituent reported in micrograms per litre; multiply by factor and divide results by 1,000.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimetres (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it. One inch is equivalent to 25.4 mm.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. Suspended-sediment discharge in tons per day is computed by multiplying discharge in ft^3/s times concentration in mg/l times 0.0027.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft or about 0.1 metre above the bed) expressed as milligrams of dry sediment per litre of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimetre at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in mg/l) is about 65 percent of the specific conductance (in micromhos per cm at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height and the volume of water, per unit of time, flowing in a channel.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the presence of a thermograph or a digital mechanism that automatically records water temperatures on paper tape.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day. One ton per day is equivalent to 0.9072 tonnes per day.

WRD is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the lists of gaging stations and water-quality stations in the front of this report, the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station, partial-record station, and water-quality station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 01667500, which appears just to the left of the station name, includes the 2-digit part number "01" plus the 6-digit downstream order number "667500." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 1 (North Atlantic slope basins), Part 2 (South Atlantic slope basins), and Part 3 (Ohio River basin). All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

Downstream order station numbers are not assigned to sites where only occasional streamflow measurements are taken. These sites are classified as miscellaneous sites and are listed in downstream order in the table beginning on page 232.

NUMBERING SYSTEM FOR WELLS

The well-numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides both the geographic location and a unique number for each well. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits is a sequential number for wells within a 1-second grid. See figure 1, page 7.

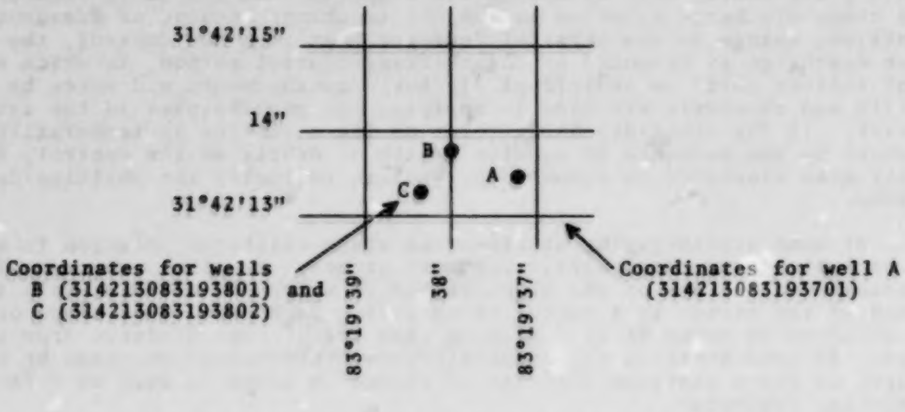
31°42'15"
14"
B
A
C
31°42'13"
Coordinates for wells B (314213083193801) and C (314213083193802)
Coordinates for well A (314213083193701)
83°19'39"
38"
83°19'37"

Figure 1. System for numbering wells (latitude and longitude)

A second well-numbering system used in Virginia utilizes 7 1/2-minute quadrangles within the State. The quadrangles are numbered from west to east, and lettered from south to north, omitting the letters "I" and "O." The designation for each quadrangle is determined by the method "Read Right, Up." Wells are numbered serially within each quadrangle. This local well number is shown immediately after the primary well number.

Well records furnished by the Bureau of Water-Control Management also include the well number that is based on an indexing system used by the State Water Control Board.

EXPLANATION OF SURFACE-WATER RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the stage or a tape punched at 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables; then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which adjustment factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorder gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals, a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on most lakes and reservoirs, a monthly and yearly summary table of stage and contents or a table showing the daily gage height is given. A table of daily mean gage heights is included for one lake station. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined by the Geological Survey, the Corps of Engineers, or the Tennessee Valley Authority. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph under "EXTREMES" headed "Current year:" the data given are for the complete current water year unless otherwise specified. In the second paragraph headed "Period of record:" the data given are for the period of record given in PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of water-quality records is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS." Those records which have been computed and furnished by other agencies are identified under "COOPERATION."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN").

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected to substantial control by man nor are peaks published for streams where crests are so flat that peaks generally are the same as or not more than 5 percent greater than the daily mean discharge. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

Data collected at partial-record stations and miscellaneous sites are given in tables at the end of the surface-water records in this report. The first is a table of annual maximum stage and discharge at crest-stage stations and the second is a table of discharge measurements at miscellaneous sites.

Accuracy of data

The accuracy of discharge data depends primarily on (1) the stability of the stage-discharge relation, or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges is within 5 percent of the true discharge; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

In each water-supply paper entitled "Surface Water Supply of the United States," there is a list of the numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Virginia for the period October 1960 to September 1965 are in Water-Supply Papers 1903, 1904, 1908, and 1910, and for the period October 1965 to September 1970 in Water-Supply Papers 2103 (in preparation), 2104 (in press), 2108, and 2110.

Two series of summary reports entitled "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950, and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps whenever practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Virginia are compiled in Water-Supply Papers 1302, 1303, 1305, and 1306 through September 1950 and in 1722, 1723, 1725, and 1726 for October 1950 to September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the offices whose addresses are given on the back of the title page of this report. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Records of discharge not published herein were collected in Virginia at 5 sites during the 1974 water year by the Research Division, Agricultural Engineering Department, Virginia Polytechnic Institute and State University, Blacksburg, Va. 24060. Information on records at these sites can be obtained from that agency.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads in this report.

Descriptive statements are given for water-quality stations. Given are location, drainage area, periods of record for the various water-quality data, extremes of pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations.

Water-quality information is presented for chemical quality, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, specific conductance, and pH. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnished information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment.

Prior to the 1968 water year, data for chemical constituents and concentration of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967 the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per litre (mg/l) and water temperatures in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per millilitre), parts per million and milligrams per litre can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million should be multiplied by the density to convert to milligrams per litre. Temperatures reported in degrees Celsius may be converted to degrees Fahrenheit by using table 2, p. 13.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per litre instead of milligrams per litre. (See "Definition of Terms," p. 4 and table 3, p. 19.

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). The method for determining elemental constituents by emission spectrographic techniques is described by Barnett and Mallory.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the sources of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between the reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

The daily chemical-quality data in this report generally represent equal-volume composites for 2- to 30-day periods; the composite periods are selected on the basis of specific conductance of the daily samples and fluctuation of water discharge.

For chemical-quality stations equipped with noncontinuous digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office at the address given on the back of the title page of this report.

Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken about the same time each day when sample is collected. Most streams have a diurnal temperature change, and small, shallow streams may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

Table 2.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

* °C = 5/9 (°F - 32) or °F = 9/5 (°C) + 32.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples may be obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

Samples are usually collected daily or, at some stations, weekly. However, during periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the sub-divided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the sub-divided day method. For periods when no samples are collected, daily loads of suspended sediment are estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

In addition to the records of the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment are included for some stations.

Publications

The annual series of water-supply papers that contain information on quality of surface waters in Virginia are listed below:

Water Year	WSP No.	Water Year	WSP No.	Water Year	WSP No.	Water Year	WSP No.
1945	1030	1956	1450	1963	1947,	1969	2141,
1946	1050	1957	1520		1948		2142,
1947	1102	1958	1571	1964	1954,		2143
1948	1132	1959	1641,		1955	1970	*2151,
1949	1162		1642	1965	1961		*2152,
1950	1186	1960	1741,	1966	1991,		*2153
1951	1197		1742		1992	1971	*2161,
1952	1250	1961	1881,	1967	2011,		*2162,
1953	1290		1882		2012		*2163
1954	1350	1962	1941,	1968	2091,		
1955	1400		1942		2092,		
					2093		

* In press.

EXPLANATION OF GROUND-WATER RECORDS

Collection and reporting of data

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Unless otherwise indicated, all water levels are below land surface. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Publications

The numbers of water-supply papers containing records of water levels in Virginia are listed below:

Calendar Year	WSP No.	Calendar Year	WSP No.	Calendar Year	WSP No.	Calendar Year	WSP No.
1935	777	1941	937	1947	1097	1953	1266
1936	817	1942	945	1948	1127	1954	1322
1937	840	1943	987	1949	1157	1955	1405
1938	845	1944	1017	1950	1166	1956-58	1538
1939	886	1945	1024	1951	1192	1959-63	1803
1940	907	1946	1072	1952	1222	1964-68	1978

HYDROLOGIC CONDITIONS

Mean streamflow for the year varied areally but was generally above normal to excessive throughout the State. Runoff at the four index gaging stations, compared with normal for the reference period 1941-70, was: Rapidan River near Culpeper, 118 percent; Slate River near Arvonia, 178 percent; Nottoway River near Stony Creek, 120 percent; and North Fork Holston River near Saltville, 175 percent. Figure 2 shows the variation of monthly runoff throughout the year at these stations.

Streamflow at the beginning of the water year was normal to above normal throughout the State continuing a general trend that had begun in 1972. No significant flooding occurred during October and November.

Flows were excessive at all index stations during December. During the latter part of the month, flooding occurred at many locations. Major flooding occurred on the Jackson River in the headwater area of the James River.

During January, flows remained in the excessive range but receded to near normal at the end of February. No significant flooding occurred during this period.

In March, runoff continued to decline and was deficient in the northern part of Virginia during the month. Near normal conditions prevailed in other areas of the State except in the southwest where streamflow was again excessive.

Flows were again near normal during April and May except in central and southwest Virginia where they continued above normal to excessive.

June flows were above normal and were again excessive in the central and southwestern parts of the State. No significant flooding occurred although there was some high water at scattered locations during the month.

Average streamflows during July were near normal except in central Virginia where they were excessive. During the first part of the month, flows were low, reflecting a long period of deficient precipitation. Near the end of the month, heavy rains caused flash floods in some areas. Some residents were evacuated in the Martinsville area because of flooding, but no lives were lost and damage was slight.

During the remaining two months of the year, flows ranged from near normal to excessive. No flooding occurred in August, but during early September, heavy rains caused some flooding in the Chowan and Roanoke River basins in southern Virginia. There was no appreciable damage.

Annual runoff was above normal at all index stations. The North Fork Holston River at Saltville had the fourth largest annual runoff since records began in 1920.

Ground-water levels were generally above average throughout the year west of the Fall Line. However, they were below the unusually high levels of last year. There was a seasonal rise in the water levels in most wells from October or November to a peak in the period January-April, then a seasonal decline through September. The conditions stated above apply also to Coastal Plain wells close to the Fall Line where the sediments are thin and not used significantly for ground-water supplies as, for example, in northern Virginia.

In the rest of the Coastal Plain, except near centers of heavy pumpage, there was generally a seasonal rise in artesian water levels from September 1973 to March 1974, then a decline from March through September of 1974. During the year, there was a net decline in water levels, continuing a long-term downward trend caused by withdrawals of ground water from the Coastal Plain sediments for industrial and public supplies. New all-time lows were recorded in most of the observation wells in this area.

In the Franklin area in the southeastern Virginia Coastal Plain, heavy pumping of ground water for industrial and public supplies has created a large cone of depression in the artesian head in the Lower Cretaceous aquifer. At the center of the cone, water levels were stabilized for the fourth consecutive year, but water levels in outlying wells continued to decline. For a one-month period from late July to late August, the main industrial user of ground water at Franklin ceased its pumping. During this month, water levels in the center of the cone of depression rose about 40 ft (12.2 m) to the historical level of early 1967. The resumption of pumping brought these water levels down about 30 ft (9.1 m) by the end of September to a depth about 10 ft (3.0 m) above the levels of early July. A slight rise in water levels was recorded in August as far from Franklin as Sebrell, Suffolk, and Smithfield. However, water levels at Bacons Castle in Surry County did not begin to rise in response to the change in pumpage until after September.

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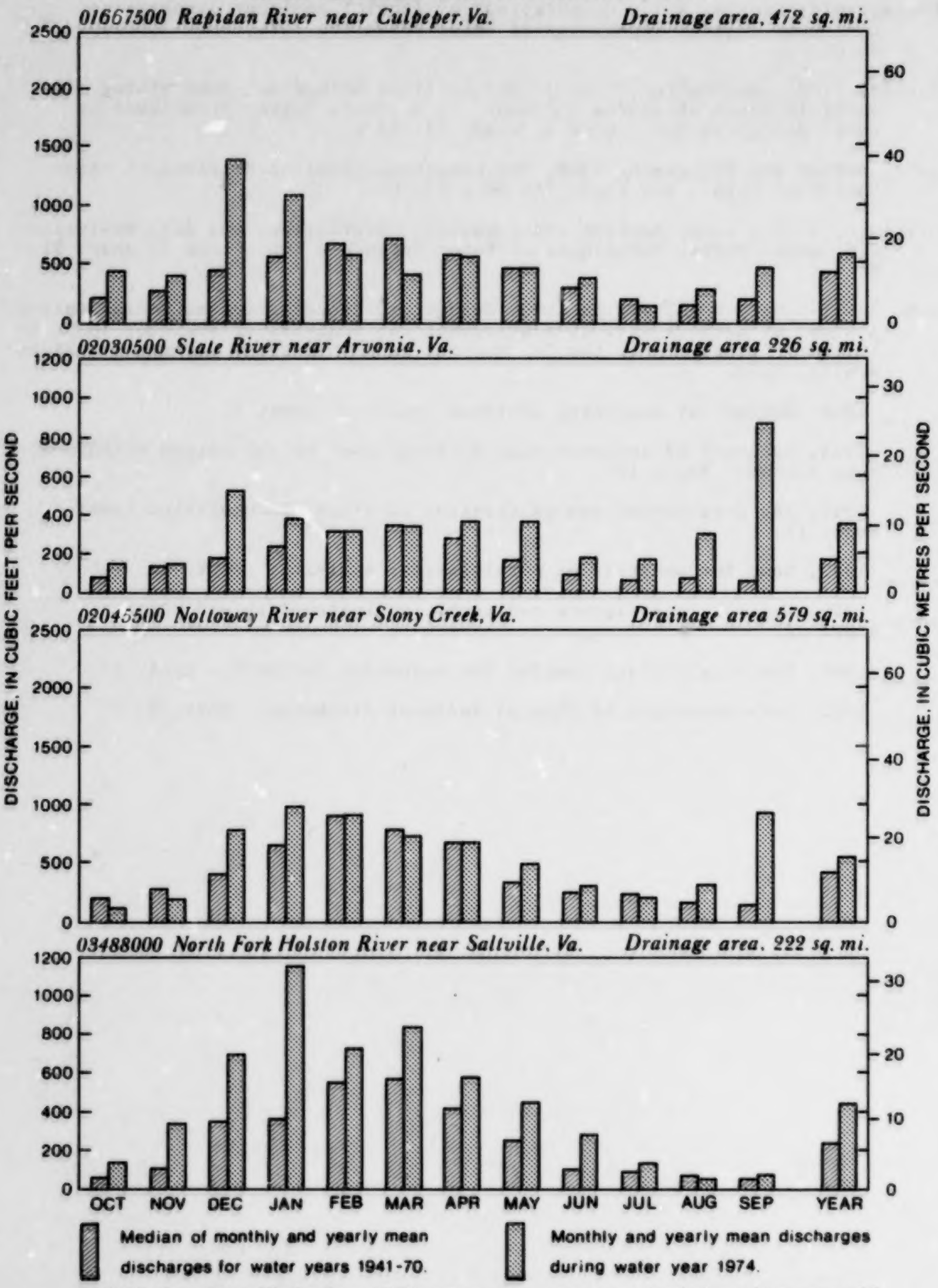

FIGURE 2. Runoff during 1974 water year compared with median runoff for period 1941-70 for four representative gaging stations

Table 3.--Factors for converting English units to International System (SI) units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
	Length	
inches (in)	$2.540\text{x}10^{1}$	millimetres (mm)
	$2.540\text{x}10^{-2}$	metres (m)
	2.540	centimetres (cm)
feet (ft)	$3.048\text{x}10^{-1}$	metres (m)
miles (mi)	1.609	kilometres (km)
	Area	
acres	$4.047\text{x}10^{3}$	square metres (m^2)
	$4.047\text{x}10^{-3}$	square kilometres (km^2)
square miles (mi^2)	2.590	square kilometres (km^2)
	Volume	
gallons (gal)	3.785	*litres (l)
	$3.785\text{x}10^{-3}$	cubic metres (m^3)
million gallons (mg)	$3.785\text{x}10^{3}$	cubic metres (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometres (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{-2}$	cubic metres (m^3)
cfs-day (ft^3/s-day)	$2.447\text{x}10^{3}$	cubic metres (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometres (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic metres (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometres (hm^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{-2}$	cubic metres per second (m^3/s)
gallons per minute (gpm)	$6.309\text{x}10^{-2}$	litres per second (l/s)
	$6.309\text{x}10^{-5}$	cubic metres per second (m^3/s)
million gallons per day (mgd)	$4.381\text{x}10^{-2}$	cubic metres per second (m^3/s)
	$3.785\text{x}10^{6}$	litres per day (l/d)
	Mass	
ton (short)	$9.072\text{x}10^{-1}$	tonne (t)

* The unit litre is accepted for use with the International System (SI). See National Bureau of Standards Special Bulletin 330, p. 13, 1972 edition.

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PART 1. SURFACE-WATER RECORDS

NORTH ATLANTIC SLOPE BASINS

NASSAWADOX CREEK BASIN

01484800 GUY CREEK NEAR NASSAWADOX, VA.

LOCATION.--Lat 37°30'08", long 75°52'22", Northampton County, on left bank 25 ft (8 m) upstream from bridge on State Highway 606, 1.9 mi (3.1 km) northwest of Nassawadox, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--1.72 mi² (4.45 km²).

PERIOD OF RECORD.--November 1963 to current year.

GAGE.--Water-stage recorder and wooden control. Datum of gage is 11.67 ft (3.557 m) above mean sea level.

AVERAGE DISCHARGE.--10 years (1964-74), 1.20 ft³/s or 0.0340 m³/s (9.47 in/yr or 241 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19 ft³/s (0.54 m³/s) Mar. 17 (gage height, 3.17 ft or 0.966 m); minimum daily, 0.08 ft³/s (0.002 m³/s) July 20.
Period of record: Maximum discharge, 60 ft³/s (1.70 m³/s) July 10, 1970 (gage height, 4.81 ft or 1.466 m); no flow at times in 1964 and 1966.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.24	.24	.81	1.3	1.8	2.6	.49	.24	.24	.14	.14
2	.39	.20	.24	.68	1.2	1.7	2.0	.55	.29	.24	.16	.16
3	.34	.18	.24	.74	1.2	1.6	1.7	.60	.39	.24	.16	.14
4	.24	.18	.24	2.5	1.5	1.5	1.7	.49	.34	.20	.18	.20
5	.20	.44	.24	1.6	1.3	1.5	4.6	.44	.29	.20	.18	.20
6	.18	.34	.24	1.2	1.1	1.4	7.5	.60	.29	.20	.20	.20
7	.16	.29	.24	1.1	1.1	1.3	3.8	.55	.29	.20	.55	.68
8	.16	.29	.29	.97	1.2	1.2	2.8	.44	.29	.18	.24	.39
9	.16	.34	.55	1.9	1.3	1.2	3.5	.60	.29	.16	.20	.20
10	.16	.34	.29	1.7	1.3	1.2	3.2	.60	.24	.14	.18	.20
11	.14	.34	.24	1.4	1.3	1.3	2.0	.49	.20	.12	.16	.18
12	.14	.29	.20	1.2	1.3	2.6	1.8	.49	.24	.12	.14	.16
13	.14	.29	.24	1.0	1.4	2.1	1.6	.49	.29	.14	.14	.14
14	.12	.29	.39	.97	1.3	1.8	1.5	.39	.24	.12	.14	.16
15	.10	.24	.29	.97	1.2	1.6	1.3	.39	.29	.12	.14	.14
16	.12	.20	.55	.97	2.8	6.4	1.0	.34	.34	.14	.18	.14
17	.12	.20	.97	.89	9.8	12	.97	.34	.24	.10	.29	.16
18	.14	.20	.55	.81	3.9	4.4	.89	.29	.24	.10	.29	.16
19	.14	.20	.49	.81	3.4	3.1	.89	.29	.24	.10	.18	.14
20	.14	.20	.49	.81	3.2	2.5	.81	.29	.20	.08	.14	.16
21	.18	.20	1.3	.97	2.4	2.3	.74	.29	.20	.10	.12	.16
22	.18	.20	.81	.97	4.1	2.0	.68	.24	.20	.10	.14	.18
23	.18	.20	.74	.89	3.8	1.8	.74	.24	.29	.12	.14	.18
24	.20	.20	.60	.81	2.8	1.7	.74	.24	.34	.10	.12	.16
25	.20	.20	.55	.97	2.4	1.4	.74	.20	.29	.12	.12	.16
26	.20	.20	.55	1.1	2.0	1.3	.74	.20	.29	.34	.14	.16
27	.18	.20	.55	1.4	1.9	1.2	.68	.34	.29	.60	.16	.14
28	.20	.29	.49	1.5	1.8	1.2	.60	.39	.29	.20	.18	.16
29	.29	.34	.44	2.8	------	1.3	.60	.24	.29	.16	.16	.20
30	.24	.29	.49	1.9	------	3.6	.55	.24	.24	.14	.14	.18
31	.24	------	.68	1.6	------	4.3	------	.24	------	.14	.14	------
TOTAL	5.82	7.61	14.42	37.94	63.3	74.3	52.97	12.02	8.19	5.26	5.55	5.73
MEAN	.19	.25	.47	1.22	2.26	2.40	1.77	.39	.27	.17	.18	.19
MAX	.39	.44	1.3	2.8	9.8	12	7.5	.60	.39	.60	.55	.68
MIN	.10	.18	.20	.68	1.1	1.2	.55	.20	.20	.08	.12	.14
CFSM	.11	.15	.27	.71	1.31	1.40	1.03	.23	.16	.10	.10	.11
IN	.13	.16	.31	.82	1.37	1.61	1.15	.26	.18	.11	.12	.12

CAL YR 1973 TOTAL 642.54 MEAN 1.76 MAX 23 MIN .10 CFSM 1.02 IN 13.90
WTR YR 1974 TOTAL 293.11 MEAN .80 MAX 12 MIN .08 CFSM .47 IN 6.34

PEAK DISCHARGE (BASE, 20 FT³/S).--NO PEAK ABOVE BASE.

01613900 HOGUE CREEK NEAR HAYFIELD, VA.

LOCATION.--Lat 39°12'52", long 78°17'18", Frederick County, on right bank 15 ft (5 m) upstream from bridge on State Highway 614, 0.8 mi (1.3 km) upstream from Gap Run, and 1.3 mi (2.1 km) southeast of Hayfield.

DRAINAGE AREA.--15.0 mi^2 (38.8 km^2).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 668.60 ft (203.789 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 13.5 ft^3/s or 0.382 m^3/s (12.22 in/yr or 310 mm/yr).

EXTREMES.--Current year: Maximum discharge, 412 ft^3/s (11.7 m^3/s) Dec. 26 (gage height, 3.97 ft or 1.210 m); minimum, 0.85 ft^3/s (0.024 m^3/s) Sept. 30.

Period of record: Maximum discharge, 2,760 ft^3/s (78.2 m^3/s) June 22, 1972 (gage height, 8.85 ft or 2.697 m), from rating curve extended above 870 ft^3/s (24.6 m^3/s); no flow for part of Sept. 14, 1968, cause unknown.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	8.0	2.5	28	11	6.7	23	4.7	5.1	4.7	1.3	1.6
2	6.4	5.2	2.2	26	11	8.7	18	4.2	81	3.5	1.3	1.5
3	3.8	3.5	2.2	24	12	9.7	16	5.1	48	2.8	1.4	1.8
4	2.5	2.8	2.5	31	11	8.7	39	4.4	23	2.5	1.4	2.3
5	1.8	4.8	3.5	27	9.7	8.0	41	3.7	15	2.3	1.4	1.8
6	1.5	6.0	4.0	24	8.7	7.7	29	3.7	11	2.3	1.3	2.2
7	1.5	4.4	3.2	19	8.7	8.0	23	3.4	8.7	2.2	1.3	7.4
8	1.5	3.8	3.2	16	9.0	8.0	24	3.2	7.4	2.0	1.2	3.2
9	1.5	3.0	31	15	9.0	7.4	39	3.5	5.6	1.9	1.3	2.5
10	1.5	2.5	28	45	8.3	7.4	28	3.9	4.4	1.8	1.4	2.2
11	1.5	2.0	17	79	7.7	6.7	23	3.4	3.4	1.7	1.4	2.2
12	1.5	2.0	12	56	7.7	7.1	20	24	2.7	1.6	1.3	2.0
13	1.8	1.8	10	33	11	7.1	28	26	3.5	1.5	1.5	2.5
14	1.4	1.8	10	26	21	6.4	28	12	8.4	1.4	1.2	2.3
15	1.2	1.8	9.0	22	16	5.9	23	9.0	7.4	1.5	1.2	1.9
16	1.4	2.2	8.0	20	14	7.1	18	9.0	11	1.3	1.2	1.8
17	1.8	2.5	10	16	12	7.7	16	7.7	12	1.3	1.3	1.7
18	1.5	2.5	15	13	11	6.7	14	6.7	6.7	1.3	1.2	1.5
19	1.5	2.2	12	12	10	6.4	12	8.7	4.7	1.3	1.2	1.5
20	1.5	2.2	16	11	9.7	6.1	11	7.7	4.4	1.1	1.3	1.6
21	1.5	2.8	95	46	8.0	16	10	5.9	3.9	1.1	1.1	1.6
22	1.5	1.5	54	41	9.3	21	9.0	5.6	3.7	1.1	4.5	1.4
23	1.5	1.8	37	28	9.7	15	9.0	7.1	11	1.3	1.8	1.3
24	1.5	1.8	30	23	8.0	13	8.3	5.9	12	1.5	1.4	1.3
25	1.5	1.8	27	23	7.7	10	7.4	4.9	9.0	1.4	1.3	1.3
26	1.5	2.0	212	21	7.7	9.0	6.7	3.7	7.4	1.5	1.5	1.1
27	1.5	2.5	173	21	7.4	8.0	6.4	3.4	6.4	1.8	1.5	1.2
28	2.0	3.8	103	18	6.7	7.4	6.1	3.2	5.9	1.4	1.5	1.2
29	75	3.5	58	17	------	7.1	5.9	3.2	7.7	1.5	1.8	1.0
30	21	2.5	39	14	------	26	5.1	3.4	5.9	1.5	2.0	.95
31	12	------	32	13	------	39	------	3.4	------	1.3	1.7	------
TOTAL	159.6	89.0	1,061.3	808	283.0	319.0	546.9	203.7	346.3	55.4	46.2	57.85
MEAN	5.15	2.97	34.2	26.1	10.1	10.3	18.2	6.57	11.5	1.79	1.49	1.93
MAX	75	8.0	212	79	21	39	41	26	81	4.7	4.5	7.4
MIN	1.2	1.5	2.2	11	6.7	5.9	5.1	3.2	2.7	1.1	1.1	.95
CFSM	.34	.20	2.28	1.74	.67	.69	1.21	.44	.77	.12	.10	.13
IN	.40	.22	2.63	2.00	.70	.79	1.36	.51	.86	.14	.11	.14

CAL YR 1973 TOTAL 6,472.00 MEAN 17.7 MAX 212 MIN 1.2 CFSM 1.18 IN 16.05
WTR YR 1974 TOTAL 3,976.25 MEAN 10.9 MAX 212 MIN .95 CFSM .73 IN 9.86

PEAK DISCHARGE (BASE, 400 FT^3/S).--DEC. 26 (1730) 412 FT^3/S (3.97 FT).

01615000 OPEQUON CREEK NEAR BERRYVILLE, VA.

LOCATION.--Lat 39°10'40", long 78°04'20", Frederick County, on left bank 35 ft (11 m) downstream from bridge on State Highway 7, 0.2 mi (0.3 km) upstream from Abrams Creek, and 5.0 mi (8.0 km) west of Berryville.

DRAINAGE AREA.--57.4 mi² (148.7 km²).

PERIOD OF RECORD.--October 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 503.24 ft (153.388 m) above mean sea level. Prior to July 26, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 39.2 ft³/s or 1.110 m³/s (9.27 in/yr or 235 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,310 ft³/s (65.4 m³/s) Dec. 26 (gage height, 8.08 ft or 2.463 m); minimum daily, 4.9 ft³/s (0.14 m³/s) Sept. 30.

Period of record: Maximum discharge, 10,600 ft³/s (300 m³/s) Nov. 13, 1970 (gage height, 12.82 ft or 3.908 m), from rating curve extended above 4,800 ft³/s (136 m³/s); minimum daily, 0.20 ft³/s (0.006 m³/s) Sept. 12, 13, 1966.

Flood in October 1942 reached a stage of 18.4 ft (5.61 m), from information by local residents.

REMARKS.--Records good. Diurnal fluctuation at low flow caused by mills above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WRD Va. 1970: Drainage area. WRD Va. 1972: 1971(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	31	8.6	74	37	24	91	13	19	21	7.1	7.6
2	10	22	8.1	62	35	26	63	12	528	18	7.1	7.8
3	20	18	7.6	55	37	31	46	14	201	16	7.2	8.0
4	13	15	8.1	107	33	27	287	12	69	14	7.1	14
5	11	21	9.8	79	30	25	145	11	41	13	7.1	9.4
6	10	29	14	61	28	24	74	11	29	14	7.1	9.7
7	9.9	20	12	51	29	26	50	12	24	12	7.2	56
8	9.5	16	9.4	41	30	26	49	11	21	11	7.1	27
9	9.9	14	171	39	28	24	163	12	19	11	7.3	15
10	11	13	112	133	26	23	86	12	37	11	7.4	12
11	10	11	63	200	26	21	56	11	163	11	7.4	12
12	10	11	44	129	26	24	44	84	35	9.8	7.4	11
13	9.9	11	36	68	42	24	56	112	24	9.4	7.4	9.7
14	9.2	11	39	52	98	21	61	37	137	8.0	7.4	45
15	8.8	11	32	48	59	21	46	26	64	7.6	7.4	17
16	9.2	11	29	48	45	22	34	21	48	8.3	50	10
17	9.9	9.7	22	40	40	31	29	19	32	7.9	105	9.2
18	10	9.2	33	33	34	25	26	19	23	7.9	18	8.8
19	11	8.9	32	32	31	25	24	39	18	8.1	9.5	7.5
20	10	9.1	41	31	31	25	22	35	22	7.7	9.3	7.0
21	9.9	9.0	366	284	26	38	20	23	25	7.1	8.2	7.6
22	9.5	9.2	176	177	31	61	19	22	18	7.1	230	8.2
23	10	8.3	111	96	37	43	21	47	50	7.4	56	5.9
24	11	8.5	90	73	27	36	18	33	58	8.0	22	6.0
25	11	9.0	80	107	26	29	17	22	62	7.5	14	6.3
26	11	8.3	987	89	23	28	16	17	47	7.9	12	5.8
27	12	8.6	695	81	22	28	15	15	43	8.8	17	5.8
28	11	10	237	63	23	27	14	14	39	8.0	11	5.6
29	467	11	129	56	------	27	13	15	46	7.2	11	5.5
30	96	9.1	102	48	------	222	13	16	28	10	9.9	4.9
31	43	------	73	43	------	261	------	15	------	7.8	9.1	------
TOTAL	911.6	392.9	3,777.6	2,500	960	1,295	1,618	762	1,970	313.5	700.7	365.3
MEAN	29.4	13.1	122	80.6	34.3	41.8	53.9	24.6	65.7	10.1	22.6	12.2
MAX	467	31	987	284	98	261	287	112	528	21	230	56
MIN	8.8	8.3	7.6	31	22	21	13	11	18	7.1	7.1	4.9
CFSM	.51	.23	2.13	1.40	.60	.73	.94	.43	1.14	.18	.39	.21
IN	.59	.25	2.45	1.62	.62	.84	1.05	.49	1.28	.20	.46	.24

CAL YR 1973 TOTAL 21,507.0 MEAN 58.9 MAX 987 MIN 7.6 CFSM 1.03 IN 13.94
WTR YR 1974 TOTAL 15,566.6 MEAN 42.6 MAX 987 MIN 4.9 CFSM .74 IN 10.09

PEAK DISCHARGE (BASE, 850 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	1030	5.63	970	6- 2	1500	5.78	1,020
12-26	2030	8.08	2,310	6-14	1930	5.31	858

01620500 NORTH RIVER NEAR STOKESVILLE, VA.

LOCATION.--Lat 38°20'15", long 79°14'25", Augusta County, on left bank 575 ft (175 m) upstream from highway bridge, 2.8 mi (4.5 km) upstream from city of Staunton dam, 3.8 mi (6.1 km) upstream from Broad Run, 5.0 mi (8.0 km) west of Stokesville, and 7.8 mi (12.6 km) upstream from Skidmore Fork.

DRAINAGE AREA.--17.2 mi^2 (44.5 km^2).

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,054.57 ft (626.233 m) above mean sea level. Prior to June 10, 1958, at site 575 ft (175 m) downstream at datum 6.0 ft (1.83 m) lower.

AVERAGE DISCHARGE.--28 years, 25.8 ft^3/s or 0.731 m^3/s (20.37 in/yr or 517 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,640 ft^3/s (46.4 m^3/s) Dec. 26 (gage height, 5.82 ft or 1.774 m), from rating curve extended as explained below; minimum, 1.4 ft^3/s (0.040 m^3/s) July 22, 23, Aug. 3, 4; minimum gage height, 1.80 ft (0.549 m) Oct. 1.

Period of record: Maximum discharge, 11,100 ft^3/s (314 m^3/s) June 17, 1949 (gage height, 10.9 ft or 3.32 m, from floodmarks, site and datum then in use), from rating curve extended above 900 ft^3/s (25.5 m^3/s) on basis of computation of peak flow over dam; minimum, 0.10 ft^3/s (0.003 m^3/s) Sept. 15, 16, 19-22, 1962, Sept. 7-13, 1966.

Flood in October 1942 reached a stage of 8.4 ft (2.56 m), from information by local resident.

REMARKS.--Records fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1903: 1960. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	59	16	47	29	20	37	7.8	21	9.2	1.8	2.1
2	14	59	16	40	27	19	36	8.0	694	8.7	1.6	2.1
3	17	44	16	37	25	18	32	9.8	317	7.7	1.5	2.2
4	15	35	16	36	23	18	50	8.6	142	6.7	1.6	2.5
5	13	33	52	34	20	19	72	8.2	73	7.2	1.7	2.3
6	10	30	82	34	19	18	66	8.8	37	8.4	1.7	2.6
7	8.9	27	61	32	17	18	51	8.3	26	7.1	1.7	7.5
8	8.4	26	45	29	16	17	43	8.0	20	5.9	1.6	9.5
9	7.5	28	42	29	15	17	36	9.7	17	5.0	2.7	9.3
10	7.5	25	34	60	14	17	32	11	14	4.3	6.0	9.2
11	6.6	23	29	117	13	17	28	11	13	4.1	3.9	9.4
12	6.2	21	26	107	12	19	26	130	12	4.0	3.4	7.8
13	5.4	20	24	81	12	19	25	175	11	3.2	3.2	7.0
14	4.8	18	24	60	12	19	23	95	9.5	2.9	3.2	7.5
15	4.8	18	22	46	11	21	21	61	9.0	2.5	2.9	6.7
16	4.5	17	21	37	11	22	19	41	11	2.3	2.3	5.0
17	4.2	16	21	31	10	24	17	28	11	2.1	2.0	5.4
18	4.2	15	19	27	10	24	16	23	9.2	1.9	1.8	5.0
19	3.9	14	17	24	10	28	15	19	7.6	1.8	1.7	4.5
20	3.6	13	46	22	10	32	14	17	7.0	1.7	1.8	3.9
21	3.3	12	241	40	9.8	61	13	16	6.4	1.7	1.7	3.5
22	3.3	12	136	62	13	98	12	14	6.2	1.5	1.7	3.2
23	3.0	12	74	57	23	79	13	14	8.2	1.6	1.7	2.9
24	3.0	11	60	53	26	58	12	13	11	2.2	1.6	2.7
25	2.8	10	48	63	27	42	11	12	10	2.3	2.4	2.7
26	2.8	10	797	74	25	33	10	11	10	2.3	4.5	2.5
27	2.5	11	646	68	22	28	9.4	10	9.2	2.5	3.8	2.4
28	3.3	13	198	54	20	25	8.9	9.2	9.4	2.2	3.0	2.4
29	26	15	124	45	------	23	8.3	8.6	10	2.0	2.6	2.2
30	40	16	84	37	------	25	8.0	12	9.7	2.1	2.4	2.0
31	44	------	59	33	------	34	------	13	------	2.0	2.2	------
TOTAL	285.4	663	3,096	1,516	481.8	912	764.6	821.0	1,541.4	119.1	75.7	138.0
MEAN	9.21	22.1	99.5	48.9	17.2	29.4	25.5	26.5	51.4	3.84	2.44	4.60
MAX	44	59	797	117	29	98	72	175	694	9.2	6.0	9.5
MIN	1.9	10	16	22	9.8	17	8.0	7.8	6.2	1.5	1.5	2.0
CFSM	.54	1.28	5.78	2.84	1.00	1.71	1.48	1.54	2.99	.22	.14	.27
IN	.62	1.43	6.67	3.28	1.04	1.97	1.65	1.78	3.33	.26	.16	.30

CAL YR 1973 TOTAL 12,257.94 MEAN 33.6 MAX 797 MIN .84 CFSM 1.95 IN 26.51
WTR YR 1974 TOTAL 10,404.00 MEAN 28.5 MAX 797 MIN 1.5 CFSM 1.66 IN 22.50

PEAK DISCHARGE (BASE, 200 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0545	3.63	291	5-12	1930	3.80	350
12-26	1645	5.82	1,640	6- 2	1215	5.26	1,160

01624300 MIDDLE RIVER NEAR VERONA, VA.

LOCATION.--Lat 38°14'36", long 79°02'08", Augusta County, on right bank at downstream side of bridge on State Highway 742, 2.7 mi (4.3 km) downstream from Moffett Creek, and 3.2 mi (5.1 km) northwest of Verona.

DRAINAGE AREA.--178 mi^2 (461 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,260.78 ft (384.286 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 182 ft^3/s or 5.154 m^3/s (13.89 in/yr or 353 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,560 ft^3/s (129 m^3/s) Dec. 26 (gage height, 10.50 ft or 3.200 m); minimum daily, 50 ft^3/s (1.42 m^3/s) Oct. 26.

Period of record: Maximum discharge, 7,220 ft^3/s (204 m^3/s) May 30, 1971 (gage height, 13.79 ft or 4.203 m), from rating curve extended above 4,200 ft^3/s (119 m^3/s); minimum, 19 ft^3/s (0.54 m^3/s) Sept. 21, 29, 1968; minimum gage height, 0.90 ft (0.274 m) Oct. 3, 4, 1970.

REMARKS.--Records good. Diurnal fluctuation at low flow caused by mill above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	75	84	407	289	171	271	112	281	101	54	91
2	102	78	77	353	271	167	258	114	777	94	55	86
3	92	73	73	338	260	164	238	130	718	88	66	121
4	75	69	73	344	245	162	398	121	392	85	61	152
5	64	75	132	326	225	158	357	118	255	85	64	133
6	61	78	281	314	215	158	422	119	198	91	57	118
7	65	75	177	299	212	166	323	116	166	94	57	232
8	70	71	133	271	205	158	286	112	147	85	57	202
9	69	73	198	281	198	156	271	118	136	80	64	166
10	69	68	272	488	188	154	235	121	128	75	71	143
11	68	68	197	760	182	158	215	116	119	74	57	152
12	65	66	161	664	175	208	200	631	111	71	62	147
13	62	65	141	512	171	253	192	1,140	106	69	68	136
14	60	68	135	422	167	279	188	504	101	68	61	119
15	59	66	125	362	166	281	180	347	102	65	68	109
16	59	65	119	326	162	281	166	268	111	64	57	102
17	57	64	111	286	160	292	160	225	109	61	55	98
18	57	62	98	260	156	276	152	198	101	59	52	93
19	56	62	109	245	156	266	147	185	96	58	58	90
20	54	62	134	235	154	289	143	169	94	58	65	86
21	56	62	1,660	489	149	531	138	156	94	57	57	83
22	56	62	873	602	162	680	133	149	90	57	61	80
23	54	64	485	482	190	467	143	145	91	58	57	78
24	52	62	380	422	180	377	138	140	118	66	68	77
25	52	61	298	482	185	302	133	133	101	61	102	74
26	50	64	1,820	482	173	263	130	128	104	77	184	71
27	51	69	2,270	467	167	240	126	130	104	86	135	69
28	53	81	861	437	167	220	124	126	109	65	96	69
29	92	114	602	407	———	210	119	121	112	66	94	68
30	80	96	497	356	———	225	116	131	107	65	126	64
31	71	———	422	320	———	286	———	135	———	55	101	———
TOTAL	2,000	2,118	12,998	12,439	5,330	7,998	6,102	6,458	5,278	2,238	2,290	3,309
MEAN	64.5	70.6	419	401	190	258	203	208	176	72.2	73.9	110
MAX	102	114	2,270	760	289	680	422	1,140	777	101	184	232
MIN	50	61	73	235	149	154	116	112	90	55	52	64
CFSM	.36	.40	2.35	2.25	1.07	1.45	1.14	1.17	.99	.41	.42	.62
IN	.42	.44	2.72	2.60	1.11	1.67	1.28	1.35	1.10	.47	.48	.69

CAL YR 1973 TOTAL 92,279 MEAN 253 MAX 2,270 MIN 50 CFSM 1.42 IN 19.29
WTR YR 1974 TOTAL 68,558 MEAN 188 MAX 2,270 MIN 50 CFSM 1.06 IN 14.33

PEAK DISCHARGE (BASE, 1,400 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1330	7.03	2,280	5-12	2130	7.15	2,390
12-26	2100	10.50	4,560				

01624800 CHRISTIANS CREEK NEAR FISHERSVILLE, VA.

LOCATION.--Lat 38°07'42", long 78°59'41", Augusta County, on right bank at upstream side of bridge on State Highway 794, 2.2 mi (3.5 km) northwest of Fishersville, and 5.6 mi (9.0 km) upstream from mouth.

DRAINAGE AREA.--70.1 mi² (181.6 km²).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,230 ft or 375 m (from topographic map).

AVERAGE DISCHARGE.--7 years, 70.6 ft³/s or 1.999 m³/s (13.68 in/yr or 347 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,180 ft³/s (61.7 m³/s) Dec. 26 (gage height, 9.65 ft or 2.941 m); minimum, 16 ft³/s (0.45 m³/s) July 22 (gage height, 1.28 ft or 0.390 m), regulation caused by construction work above station.

Period of record: Maximum discharge, 3,850 ft³/s (109 m³/s) Oct. 5, 1972 (gage height, 12.91 ft or 3.935 m), from rating curve extended above 2,100 ft³/s (59.5 m³/s) on basis of velocity-area study; minimum, 4.3 ft³/s (0.12 m³/s) Jan. 11, 1969 (gage height, 0.90 ft or 0.274 m), result of freezeup.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	40	24	186	114	61	70	43	74	34	21	44
2	84	34	23	146	110	58	67	44	262	34	21	42
3	44	30	23	142	107	56	64	58	123	31	23	68
4	33	29	23	149	102	55	177	45	78	29	23	102
5	30	41	47	133	92	52	138	44	65	30	25	58
6	28	38	47	126	91	55	139	48	59	30	22	121
7	27	33	37	116	92	63	96	43	55	30	22	256
8	34	31	33	108	87	55	94	42	51	29	36	98
9	29	34	119	128	84	53	92	46	48	27	50	76
10	30	30	93	148	82	51	82	43	47	33	40	64
11	28	29	69	193	80	51	77	41	48	29	27	59
12	26	28	56	166	77	71	74	100	43	27	36	51
13	25	28	55	133	76	86	73	87	41	25	53	47
14	24	27	60	126	73	84	70	57	44	24	36	44
15	23	26	55	121	70	75	67	51	43	24	40	42
16	23	26	54	114	70	73	64	47	45	25	27	41
17	23	25	53	107	69	68	62	44	42	23	24	39
18	24	25	52	98	66	63	60	66	39	23	23	37
19	23	25	51	96	66	65	59	71	37	23	50	36
20	23	25	205	90	65	73	57	48	39	23	38	34
21	23	25	790	474	61	150	55	44	45	23	27	33
22	25	25	224	194	84	114	55	42	37	22	62	32
23	26	24	157	151	72	95	53	49	48	22	37	32
24	23	23	138	164	66	87	53	42	64	28	32	31
25	23	23	121	194	65	80	51	39	42	25	37	30
26	23	23	1,090	165	59	76	50	37	40	28	118	30
27	23	27	578	177	59	73	48	39	38	26	71	29
28	25	28	245	155	59	70	47	37	41	23	41	30
29	82	29	188	144	------	67	46	36	41	23	71	29
30	41	25	163	131	------	82	44	45	36	31	118	29
31	38	------	158	124	------	82	------	41	------	22	53	------
TOTAL	961	856	5,031	4,699	2,198	2,244	2,164	1,519	1,715	826	1,304	1,664
MEAN	31.0	28.5	162	152	78.5	72.4	72.1	49.0	57.2	26.6	42.1	55.5
MAX	84	41	1,090	474	114	150	177	100	262	34	118	256
MIN	23	23	23	90	59	51	44	36	36	22	21	29
CFSM	.44	.41	2.31	2.17	1.12	1.03	1.03	.70	.82	.38	.60	.79
IN	.51	.45	2.67	2.49	1.17	1.19	1.15	.81	.91	.44	.69	.88

CAL YR 1973 TOTAL 32,042 MEAN 87.8 MAX 1,090 MIN 21 CFSM 1.25 IN 17.00
WTR YR 1974 TOTAL 25,181 MEAN 69.0 MAX 1,090 MIN 21 CFSM .98 IN 13.36

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0900	7.34	1,340	1-21	1100	6.76	1,180
12-26	1730	9.65	2,180				

01625000 MIDDLE RIVER NEAR GROTTOES, VA.

LOCATION.--Lat 38°15'42", long 78°51'44", Augusta County, on left bank at upstream side of bridge on State Highway 769 at Mount Meridian, 1.8 mi (2.9 km) upstream from mouth, and 2.0 mi (3.2 km) west of Grottoes.

DRAINAGE AREA.--375 mi^2 (971 km^2).

PERIOD OF RECORD.--April 1927 to current year. Records for February 1925 to September 1926, published in WSP 601 and 621, are unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 1,061.51 ft (323.548 m) above mean sea level. Prior to Sept. 1, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--47 years, 304 ft^3/s or 8.609 m^3/s (11.01 in/yr or 280 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,590 ft^3/s (243 m^3/s) Dec. 27 (gage height, 15.99 ft or 4.874 m); minimum, 93 ft^3/s (2.63 m^3/s) July 23; minimum gage height, 3.73 ft (1.137 m) July 22, 23.

Period of record: Maximum discharge, 24,500 ft^3/s (694 m^3/s) Mar. 18, 1936 (gage height, 28.57 ft or 8.708 m, from floodmarks), from rating curve extended above 15,000 ft^3/s (425 m^3/s); minimum observed, 22 ft^3/s (0.62 m^3/s) Sept. 21, Oct. 3, 12, 1930 (gage height, 1.90 ft or 0.579 m).

Maximum stage since at least 1877, that of Mar. 18, 1936.

REMARKS.--Records good. Small diurnal fluctuation at low flow caused by mills above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1051: 1928-29, 1930(M), 1932, 1935-37, 1938(M), 1940. WSP 1171: 1933. WSP 1302: 1928-29(M), 1931-34(M). WRD Va. 1970: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	163	145	808	530	268	415	184	334	152	99	172
2	213	150	132	690	490	264	391	214	736	146	98	156
3	266	143	125	633	469	255	364	221	1,360	139	111	164
4	171	133	123	661	447	246	432	197	691	131	109	270
5	145	135	142	617	407	239	954	197	447	126	114	250
6	126	163	351	568	383	239	712	198	340	128	107	206
7	121	143	327	531	383	267	557	187	286	148	102	648
8	151	136	243	480	369	251	480	185	253	135	103	449
9	145	142	517	504	358	236	481	201	231	125	131	319
10	132	137	664	671	337	231	423	196	213	119	166	265
11	132	127	447	1,240	325	230	378	187	200	144	123	231
12	127	124	341	1,190	314	319	352	941	188	119	106	243
13	122	123	296	886	306	417	337	1,270	175	113	174	215
14	120	122	293	718	297	460	330	625	168	111	129	196
15	115	121	265	624	287	444	316	430	170	108	126	174
16	114	120	248	570	278	425	294	343	177	107	114	159
17	112	116	249	501	276	429	280	290	177	104	102	153
18	109	113	236	454	266	405	270	257	166	102	98	146
19	111	112	231	424	262	388	260	298	154	101	102	139
20	109	113	329	402	263	423	249	236	152	100	182	133
21	108	112	2,920	1,350	250	626	240	217	156	98	118	129
22	109	113	1,970	1,290	277	1,120	244	202	154	97	143	124
23	110	112	1,030	908	336	781	249	197	148	95	165	119
24	109	111	818	775	294	603	230	199	213	110	121	116
25	106	110	643	956	286	493	219	185	185	111	119	114
26	105	109	2,710	888	277	424	211	173	158	103	327	112
27	104	119	6,070	899	266	387	204	173	160	165	335	110
28	108	124	1,760	802	262	357	200	174	172	120	204	110
29	267	137	1,140	740	------	334	195	165	176	111	187	109
30	223	174	910	653	------	352	189	185	166	141	387	104
31	173	------	763	586	------	459	------	197	------	113	228	------
TOTAL	4,296	3,857	26,438	23,019	9,295	12,372	10,456	8,924	8,306	3,722	4,730	5,835
MEAN	139	129	853	743	332	399	349	288	277	120	153	195
MAX	267	174	6,070	1,350	530	1,120	954	1,270	1,360	165	387	648
MIN	104	109	123	402	250	230	189	165	148	95	98	104
CFSM	.37	.34	2.27	1.98	.89	1.06	.93	.77	.74	.32	.41	.52
IN	.43	.38	2.62	2.28	.92	1.23	1.04	.89	.82	.37	.47	.58

CAL YR 1973 TOTAL 166,039 MEAN 455 MAX 6,070 MIN 104 CFSM 1.21 IN 16.47
WTR YR 1974 TOTAL 121,250 MEAN 332 MAX 6,070 MIN 95 CFSM .89 IN 12.03

PEAK DISCHARGE (BASE, 2,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1730	11.31	3,950	1-21	1800	9.11	2,410
12-27	0730	15.99	8,590	5-12	1930	8.91	2,290

01626000 SOUTH RIVER NEAR WAYNESBORO, VA.

LOCATION.--Lat 38°03'27", long 78°54'30", Waynesboro City, on right bank 80 ft (20 m) downstream from bridge on State Highway 664, 1.3 mi (2.1 km) southwest of post office at Waynesboro, and 2.4 mi (3.9 km) downstream from Back Creek.

DRAINAGE AREA.--127 mi² (329 km²), of which 41 mi² (106 km²) are above flood-detention structures.

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,296.20 ft (395.082 m) above mean sea level.

AVERAGE DISCHARGE.--22 years, 135 ft³/s or 3.823 m³/s (14.44 in/yr or 367 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,010 ft³/s (56.9 m³/s) Dec. 27 (gage height, 6.84 ft or 2.085 m); minimum, 41 ft³/s (1.16 m³/s) Oct. 1, 6, Sept. 30; minimum gage height, 2.44 ft (0.744 m) July 17.

Period of record: Maximum discharge, 17,400 ft³/s (493 m³/s) Aug. 20, 1969 (gage height, 15.27 ft or 4.654 m), from rating curve extended above 4,200 ft³/s (119 m³/s) on basis of contracted-opening measurement at gage height 13.95 ft (4.252 m); minimum, 7.0 ft³/s (0.20 m³/s) July 18, 1966; minimum daily, 17 ft³/s (0.48 m³/s) Aug. 8, 1966.

Flood in October 1942 reached a stage of 14.3 ft (4.36 m), from floodmarks (discharge, 14,500 ft³/s or 411 m³/s).

REMARKS.--Records good. Flow from 41 mi² (106 km²) above station slightly regulated by flood-detention reservoirs (sixteen of which were built by Soil Conservation Service between 1954 and 1961). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	59	44	468	227	154	158	96	119	64	44	48
2	76	56	43	415	213	142	151	95	191	61	44	49
3	76	53	43	361	208	134	143	115	219	59	87	60
4	50	49	43	342	196	126	219	101	163	57	60	129
5	45	67	70	306	178	121	411	95	136	55	90	92
6	42	112	101	273	171	118	385	108	120	55	64	105
7	42	65	78	249	175	123	311	97	111	62	57	380
8	45	60	70	222	166	115	273	91	104	58	59	269
9	43	60	114	235	160	108	263	99	98	55	67	190
10	48	56	135	253	149	103	225	103	90	53	82	149
11	46	54	113	268	144	102	199	94	93	59	67	122
12	43	51	102	276	138	130	184	528	82	54	61	102
13	43	49	99	245	138	143	179	767	76	51	64	92
14	42	48	130	229	131	134	174	431	79	50	57	79
15	42	47	130	222	126	130	214	321	79	47	76	72
16	43	47	124	209	124	129	188	238	77	46	62	65
17	42	45	121	193	127	131	176	192	82	46	65	61
18	43	45	109	179	122	122	169	175	73	46	52	59
19	43	45	102	171	120	122	161	171	67	47	56	56
20	43	45	410	164	120	141	151	148	66	46	56	54
21	42	45	1,380	398	111	183	141	132	65	45	48	51
22	42	45	856	537	214	247	137	123	65	45	79	48
23	43	45	561	398	292	222	148	125	70	46	71	46
24	42	45	403	347	229	203	136	114	99	47	59	45
25	42	44	310	373	202	181	127	101	73	47	54	45
26	42	44	870	350	177	166	119	93	70	55	54	44
27	42	46	1,710	348	162	156	114	91	68	52	52	43
28	46	46	949	324	154	147	108	87	66	46	50	43
29	112	46	661	300	------	141	103	81	70	44	56	43
30	80	45	511	272	------	161	100	93	67	48	53	42
31	63	------	423	249	------	181	------	92	------	45	50	------
TOTAL	1,536	1,564	10,815	9,176	4,674	4,516	5,567	5,197	2,838	1,591	1,896	2,683
MEAN	49.5	52.1	349	296	167	146	186	168	94.6	51.3	61.2	89.4
MAX	112	112	1,710	537	292	247	411	767	219	64	90	380
MIN	42	44	43	164	111	102	100	81	65	44	44	42
CFSM	.39	.41	2.75	2.33	1.32	1.15	1.46	1.32	.74	.40	.48	.70
IN	.45	.46	3.17	2.69	1.37	1.32	1.63	1.52	.83	.47	.56	.79

CAL YR 1973 TOTAL 67,594 MEAN 185 MAX 1,710 MIN 41 CFSM 1.46 IN 19.80
WTR YR 1974 TOTAL 52,053 MEAN 143 MAX 1,710 MIN 42 CFSM 1.13 IN 15.25

PEAK DISCHARGE (BASE, 1,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0900	6.53	1,730	5-12	1830	6.49	1,690
12-27	0100	6.84	2,010				

01627500 SOUTH RIVER AT HARRISTON, VA.

LOCATION.--Lat 38°13'07", long 78°50'13", Augusta County, on left bank 100 ft (30 m) downstream from bridge on State Highway 778, 0.3 mi (0.5 km) northwest of Harriston, 0.6 mi (1.0 km) downstream from Paine Run, and 7.2 mi (11.6 km) upstream from confluence with North River.

DRAINAGE AREA.--212 mi^2 (549 km^2).

PERIOD OF RECORD.--February 1925 to September 1951, October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,129.87 ft (344.384 m) above mean sea level. Prior to Sept. 1, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 250 ft^3/s or 7.080 m^3/s (16.01 in/yr or 407 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,660 ft^3/s (104 m^3/s) Dec. 21 (gage height, 8.00 ft or 2.438 m); minimum, 71 ft^3/s (2.01 m^3/s) July 21 (gage height, 2.55 ft or 0.777 m).

Period of record: Maximum discharge, 23,100 ft^3/s (654 m^3/s) Oct. 15, 1942 (gage height, 17.2 ft or 5.24 m), from rating curve extended above 7,300 ft^3/s (207 m^3/s); minimum, 17 ft^3/s (0.48 m^3/s) Nov. 14, 1941; minimum gage height, 2.20 ft (0.671 m) Oct. 31, Nov. 3, 4, 9, 1968.

Floods in 1870 and 1877 reached a stage of about 18.8 ft (5.73 m), from information by observer in 1925.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1171: 1926(M), 1927-28, 1929-32(M), 1933, 1934(M), 1935, 1937. WSP 1302: 1937(M), 1938(M). WRD Va. 1972: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	118	92	705	387	243	260	160	197	109	82	90
2	172	113	92	650	359	230	245	170	347	102	254	90
3	153	102	80	560	351	218	280	185	442	98	147	104
4	100	94	80	532	328	209	460	170	318	92	115	160
5	86	104	92	482	304	203	700	160	259	90	153	161
6	80	153	147	433	286	200	660	170	218	90	122	153
7	76	130	134	395	286	209	550	165	197	111	107	491
8	90	111	120	355	279	197	480	155	186	104	118	407
9	82	115	275	371	268	189	435	170	175	96	127	296
10	80	107	314	403	252	183	400	160	161	90	164	239
11	86	98	246	438	246	181	350	600	153	90	132	206
12	82	96	212	464	236	218	310	1,300	144	88	118	181
13	80	94	189	420	230	243	295	900	134	86	115	164
14	80	92	200	391	224	233	290	700	134	80	109	150
15	80	90	209	375	215	224	300	500	137	80	155	137
16	80	90	206	355	212	210	350	400	137	78	115	127
17	76	88	195	328	215	208	300	350	137	75	120	122
18	76	88	183	300	209	205	280	300	127	75	104	120
19	78	88	183	286	206	200	265	290	118	76	109	105
20	78	86	452	279	206	250	255	280	115	76	113	96
21	80	86	2,960	652	195	310	240	240	118	73	98	90
22	78	88	1,720	970	254	400	230	220	113	75	107	87
23	76	86	1,000	705	438	380	225	206	118	76	134	86
24	76	84	705	625	351	350	215	192	161	90	113	84
25	76	86	790	625	314	320	200	169	130	88	104	82
26	76	84	1,140	600	282	290	186	155	122	94	100	81
27	78	90	2,860	590	259	270	178	147	118	102	96	81
28	80	92	1,700	550	246	255	170	147	113	88	96	86
29	240	88	1,120	510	------	240	165	137	120	88	96	82
30	178	86	820	464	------	280	160	153	115	98	102	81
31	132	------	678	424	------	300	------	153	------	86	94	------
TOTAL	2,961	2,927	19,194	15,237	7,638	7,548	9,434	9,204	5,064	2,744	3,719	4,439
MEAN	95.5	97.6	619	492	273	247	314	297	169	88.5	120	148
MAX	240	153	2,960	970	438	400	700	1,300	442	111	254	491
MIN	76	84	80	279	195	181	150	137	113	73	82	81
CFSM	.45	.46	2.92	2.32	1.29	1.17	1.48	1.40	.80	.42	.57	.70
IN	.52	.51	3.37	2.67	1.34	1.34	1.66	1.62	.89	.48	.65	.78

CAL YR 1973 TOTAL 120,010 MEAN 329 MAX 2,960 MIN 73 CFSM 1.55 IN 21.06
WTR YR 1974 TOTAL 90,209 MEAN 247 MAX 2,960 MIN 73 CFSM 1.17 IN 15.83

PEAK DISCHARGE (BASE, 1,200 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1200	8.00	3,660	5-12	UNKNOWN	6.62	2,240
12-27	0400	7.66	3,300	8- 2	1830	5.55	1,480

NOTE.--NO GAGE-HEIGHT RECORD MAR. 16 TO APR. 24, APR. 27 TO MAY 22.

01628500 SOUTH FORK SHENANDOAH RIVER NEAR LYNNWOOD, VA.

LOCATION.--Lat 38°19'20", long 78°45'30", Rockingham County, on left bank 1.2 mi (1.9 km) northeast of Lynnwood and 3.3 mi (5.3 km) downstream from confluence of North and South Rivers.

DRAINAGE AREA.--1,084 mi² (2,808 km²).

PERIOD OF RECORD.--September 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,013.17 ft (308.814 m) above mean sea level.

AVERAGE DISCHARGE.--44 years, 977 ft³/s or 27.67 m³/s (12.24 in/yr or 311 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,800 ft³/s (561 m³/s) Dec. 27 (gage height, 15.73 ft or 4.795 m); minimum, 298 ft³/s (8.44 m³/s) Sept. 30; minimum gage height, 2.29 ft (0.698 m) July 23, Aug. 2.

Period of record: Maximum discharge, 80,000 ft³/s (2,270 m³/s) Oct. 15, 1942 (gage height, 27.2 ft or 8.29 m), from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of computations of flow over dam at gage heights 23.60 ft (7.193 m) and 27.2 ft (8.29 m); minimum, 32 ft³/s (0.91 m³/s) Sept. 20, 1932 (gage height, 1.63 ft or 0.497 m); minimum daily, 93 ft³/s (2.63 m³/s) Sept. 21, 29, 1930.

Maximum stage since at least 1870, that of Oct. 15, 1942.

REMARKS.--Records good. Diurnal fluctuation at low flow prior to 1960 caused by mill at Lynnwood. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1171: 1933(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363	1,080	426	2,740	1,640	941	1,260	584	772	482	339	406
2	486	1,050	424	2,340	1,510	926	1,230	570	3,450	467	380	385
3	639	922	402	2,040	1,450	901	1,190	636	6,610	450	464	394
4	518	774	399	2,000	1,370	865	1,330	633	3,650	434	379	499
5	480	710	439	1,850	1,260	838	2,320	587	2,330	421	405	537
6	431	719	951	1,700	1,190	834	2,230	600	1,690	459	380	475
7	405	625	1,070	1,590	1,170	884	1,880	593	1,320	467	356	1,100
8	426	575	903	1,470	1,130	848	1,650	567	1,060	443	351	1,020
9	437	605	1,560	1,480	1,100	801	1,620	574	908	419	387	744
10	421	567	1,980	2,070	1,040	775	1,430	604	801	407	440	627
11	410	525	1,400	3,080	1,000	765	1,270	574	721	424	408	583
12	400	504	1,140	3,060	968	921	1,180	814	656	400	367	598
13	386	491	996	2,520	946	1,050	1,120	5,540	602	387	401	544
14	376	483	954	2,160	928	1,080	1,100	3,350	566	378	395	502
15	372	471	891	1,920	897	1,070	1,080	2,270	557	370	391	466
16	367	455	836	1,750	868	1,050	1,030	1,700	568	366	378	439
17	358	437	845	1,560	862	1,070	952	1,340	577	359	356	429
18	353	428	749	1,410	833	1,020	918	1,120	543	349	345	414
19	353	423	733	1,300	819	1,010	878	1,050	510	346	343	399
20	353	415	919	1,240	823	1,110	836	932	499	345	421	389
21	358	408	9,520	2,990	785	1,470	791	843	488	340	371	381
22	353	408	7,000	3,590	842	2,540	758	770	489	335	359	374
23	349	404	3,990	2,820	1,170	2,090	788	734	484	330	444	365
24	353	394	3,090	2,480	1,070	1,770	772	707	578	356	378	358
25	349	390	2,400	2,830	1,070	1,510	724	646	541	369	369	355
26	344	388	7,630	2,730	1,030	1,320	692	600	505	348	499	354
27	344	403	16,500	2,750	982	1,210	663	584	488	410	612	349
28	349	418	7,960	2,490	945	1,120	642	578	501	399	449	348
29	710	445	5,000	2,280	------	1,060	620	547	518	375	410	347
30	989	443	3,760	2,010	------	1,080	604	572	506	407	558	334
31	1,070	------	2,950	1,810	------	1,340	------	611	------	379	473	------
TOTAL	13,902	16,360	87,817	68,060	29,698	35,269	33,558	31,830	33,488	12,221	12,608	14,515
MEAN	448	545	2,833	2,195	1,061	1,138	1,119	1,027	1,116	394	407	484
MAX	1,070	1,080	16,500	3,590	1,640	2,540	2,320	5,540	6,610	482	612	1,100
MIN	344	388	399	1,240	785	765	604	547	484	330	339	334
CFSM	.41	.50	2.61	2.02	.98	1.05	1.03	.95	1.03	.36	.38	.45
IN	.48	.56	3.01	2.34	1.02	1.21	1.15	1.09	1.15	.42	.43	.50

CAL YR 1973 TOTAL 531,900 MEAN 1,457 MAX 16,500 MIN 344 CFSM 1.34 IN 18.25
WTR YR 1974 TOTAL 389,326 MEAN 1,067 MAX 16,500 MIN 330 CFSM .98 IN 13.36

PEAK DISCHARGE (BASE, 7,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1700	12.52	12,400	6- 2	2330	10.57	9,060
12-27	0330	15.73	19,800				

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.

LOCATION.--Lat 38°54'50", long 78°12'40", Warren County, on left bank 0.7 mi (1.1 km) downstream from bridge on State Highway 619, 1.0 mi (1.6 km) west of Front Royal, and 3.5 mi (5.6 km) upstream from confluence with North Fork.

DRAINAGE AREA.--1,642 mi^2 (4,253 km^2).

PERIOD OF RECORD.--June 1899 to September 1906, September 1930 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 469.38 ft (143.067 m) above mean sea level. June 1899 to July 1906, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum.

AVERAGE DISCHARGE.--51 years, 1,581 ft^3/s or 44.77 m^3/s (13.08 in/yr or 332 mm/yr).

EXTREMES.--Current year: Maximum discharge, 29,000 ft^3/s (821 m^3/s) Dec. 27 (gage height, 13.32 ft or 4.060 m); minimum, 377 ft^3/s (10.7 m^3/s) July 21 (gage height, 1.11 ft or 0.338 m).

Period of record: Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) Oct. 16, 1942 (gage height, 34.8 ft or 10.61 m, from floodmark in gage well), from rating curve extended above 92,000 ft^3/s (2,610 m^3/s) on basis of slope-area measurement of peak flow; minimum, 59 ft^3/s (1.67 m^3/s) Jan. 30, 1934 (gage height, 0.56 ft or 0.171 m); minimum daily, 103 ft^3/s (2.92 m^3/s) Sept. 30, 1930.

Maximum stage since at least 1870, that of Oct. 16, 1942.

REMARKS.--Records good. Large diurnal fluctuation at low and medium flow caused by powerplants above station prior to 1954; occasional large diurnal fluctuation thereafter. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 951: 1936(M). WSP 1171: 1935(M), 1937(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	1,720	681	4,350	2,740	1,390	2,130	900	992	773	525	709
2	565	1,560	669	3,920	2,510	1,390	2,030	884	3,430	731	508	635
3	665	1,540	649	3,420	2,340	1,410	1,910	881	6,810	676	439	533
4	912	1,400	644	3,170	2,220	1,350	1,980	900	7,510	630	459	492
5	845	1,250	644	3,110	2,090	1,260	2,350	936	4,690	621	573	581
6	684	1,160	689	2,900	1,940	1,230	3,140	947	3,240	618	500	685
7	644	1,110	921	2,700	1,810	1,210	3,140	830	2,460	591	492	931
8	599	1,030	1,520	2,590	1,800	1,250	2,780	851	2,050	626	495	985
9	606	969	1,750	2,500	1,750	1,230	2,590	874	1,710	648	479	1,430
10	607	953	2,880	2,520	1,660	1,190	2,460	870	1,410	607	484	1,120
11	611	966	3,200	3,370	1,590	1,150	2,200	840	1,270	577	520	939
12	579	905	2,390	4,720	1,510	1,130	1,980	1,160	1,140	512	558	895
13	572	822	1,960	4,460	1,490	1,190	1,850	3,320	1,040	532	562	762
14	537	756	1,740	3,720	1,520	1,400	1,780	7,230	984	516	482	786
15	514	782	1,610	3,240	1,450	1,470	1,690	4,600	924	492	492	635
16	505	781	1,490	2,940	1,380	1,480	1,600	3,390	898	478	563	631
17	480	723	1,500	2,680	1,310	1,480	1,540	2,550	898	473	522	597
18	482	695	1,500	2,410	1,300	1,470	1,420	2,060	899	462	499	560
19	462	677	1,290	2,180	1,300	1,460	1,350	1,790	871	461	445	540
20	462	681	1,320	2,030	1,270	1,390	1,270	1,600	790	438	451	516
21	465	656	5,730	2,410	1,230	1,550	1,220	1,400	783	411	423	503
22	461	633	15,600	5,750	1,230	1,850	1,180	1,260	777	410	562	477
23	471	644	8,740	5,260	1,260	3,150	1,150	1,250	797	421	538	462
24	486	617	5,680	4,300	1,570	2,780	1,130	1,110	855	425	473	460
25	470	582	4,500	3,960	1,580	2,410	1,150	1,090	843	421	547	451
26	466	599	5,490	4,260	1,520	2,120	1,080	1,000	915	433	495	427
27	460	596	22,000	4,150	1,480	1,890	1,030	961	801	506	525	445
28	464	640	20,200	4,060	1,390	1,730	968	810	775	456	606	435
29	1,840	665	9,750	3,710	------	1,620	963	883	807	549	807	434
30	2,300	661	6,880	3,360	------	1,680	937	903	791	601	626	422
31	1,910	------	5,210	3,020	------	1,880	------	838	------	539	545	------
TOTAL	21,600	26,773	138,827	107,170	46,240	49,190	51,998	48,918	52,160	16,634	16,195	19,278
MEAN	697	892	4,478	3,457	1,651	1,587	1,733	1,578	1,739	537	522	643
MAX	2,300	1,720	22,000	5,750	2,740	3,150	3,140	7,230	7,510	773	807	1,430
MIN	460	582	644	2,030	1,230	1,130	937	810	775	410	423	422
CFSM	.42	.54	2.73	2.11	1.01	.97	1.06	.96	1.06	.33	.32	.39
IN	.49	.61	3.15	2.43	1.05	1.11	1.18	1.11	1.18	.38	.37	.44

CAL YR 1973 TOTAL 796,099 MEAN 2,181 MAX 22,000 MIN 442 CFSM 1.33 IN 18.04
WTR YR 1974 TOTAL 594,983 MEAN 1,630 MAX 22,000 MIN 410 CFSM .99 IN 13.48

PEAK DISCHARGE (BASE, 8,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1045	9.88	17,200	5-14	0445	6.53	8,560
12-27	2215	13.32	29,000	6- 3	1830	7.51	10,500

01632000 NORTH FORK SHENANDOAH RIVER AT COOTES STORE, VA.

LOCATION.--Lat 38°38'13", long 78°51'11", Rockingham County, on right bank at Cootes Store, 300 ft (90 m) upstream from bridge on State Highway 259, and 3.7 mi (6.0 km) upstream from Linville Creek.

DRAINAGE AREA.--210 mi² (544 km²).

PERIOD OF RECORD.--February 1925 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,051.8 ft (320.59 m) above mean sea level (Corps of Engineers bench mark). Prior to Nov. 15, 1937, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years, 188 ft³/s or 5.324 m³/s (12.16 in/yr or 309 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,800 ft³/s (362 m³/s) June 2 (gage height, 14.47 ft or 4.410 m), from rating curve extended as explained below; minimum, 6.5 ft³/s (0.18 m³/s) Aug. 7, 8, 9 (gage height, 2.10 ft or 0.640 m).

Period of record: Maximum discharge, 50,000 ft³/s (1,420 m³/s) Oct. 15, 1942 (gage height, 25.3 ft or 7.71 m, from floodmark), from rating curve extended above 9,000 ft³/s (255 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.20 ft³/s (0.006 m³/s) Aug. 28, 29, Sept. 4, 1957, Sept. 7-10, 1966; minimum gage height, 1.74 ft (0.530 m) Sept. 7-10, 1966.

Maximum stage since at least 1836, that of Oct. 15, 1942.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 726: 1928-31. WSP 951: 1936, 1939(M). WSP 1171: 1935, 1937, 1938(M). WSP 1502: 1926, 1927-28(M), 1929, 1930-34(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	518	47	334	211	138	286	48	84	106	12	25
2	394	380	45	266	191	149	269	49	7,390	81	9.9	24
3	348	273	44	233	181	175	231	66	2,690	55	10	24
4	184	201	44	221	156	180	553	58	836	52	8.9	33
5	127	198	99	198	139	182	743	52	432	47	8.6	30
6	92	200	171	188	125	176	544	54	277	45	7.7	31
7	71	187	147	179	119	171	395	50	202	39	7.1	175
8	61	169	126	162	119	169	342	47	161	33	6.5	118
9	161	163	196	157	109	159	324	48	134	29	6.8	76
10	157	142	224	260	95	158	279	51	117	26	12	60
11	115	123	205	547	94	144	246	47	95	23	10	257
12	95	111	176	532	86	155	225	1,110	77	21	9.8	164
13	56	102	163	412	100	157	213	1,400	64	19	10	115
14	54	94	172	337	166	149	197	651	83	17	10	94
15	45	88	180	292	194	147	180	403	152	15	23	66
16	39	85	183	248	180	151	159	298	96	14	14	51
17	35	78	182	208	172	153	142	213	141	13	168	41
18	32	69	168	176	155	143	127	178	110	12	62	35
19	28	63	153	157	146	139	119	152	80	11	39	30
20	27	59	1,080	145	142	135	108	128	68	11	32	26
21	25	55	4,490	427	122	154	94	108	59	9.6	25	23
22	23	52	1,620	542	142	210	88	91	50	8.9	22	21
23	22	49	899	440	183	215	90	92	78	8.4	19	19
24	21	47	664	382	179	217	85	86	194	8.8	22	17
25	20	45	517	504	182	193	78	74	158	8.1	20	16
26	19	45	6,290	529	164	174	68	62	128	8.0	18	15
27	18	47	4,720	501	151	160	62	56	103	9.0	27	14
28	20	52	1,520	415	145	146	58	49	103	7.6	23	13
29	1,040	52	841	352	------	139	55	45	191	7.8	38	12
30	838	49	579	292	------	170	51	49	138	19	25	10
31	603	------	411	247	------	291	------	46	------	17	22	------
TOTAL	4,791	3,796	26,356	9,883	4,150	5,203	6,411	5,861	14,491	792.2	728.3	1,635
MEAN	155	127	850	319	148	168	214	189	483	25.6	23.5	54.5
MAX	1,040	518	6,290	547	211	291	743	1,400	7,390	106	168	257
MIN	18	45	44	145	86	135	51	45	50	7.6	6.5	10
CFSM	.74	.60	4.05	1.52	.70	.80	1.02	.90	2.30	.12	.11	.26
IN	.85	.67	4.67	1.75	.74	.92	1.14	1.04	2.57	.14	.13	.29

CAL YR 1973 TOTAL 118,006.0 MEAN 323 MAX 6,290 MIN 10 CFSM 1.54 IN 20.90
WTR YR 1974 TOTAL 84,097.5 MEAN 230 MAX 7,390 MIN 6.5 CFSM 1.10 IN 14.90

PEAK DISCHARGE (BASE, 3,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0830	10.28	6,040	6- 2	1330	14.47	12,800
12-26	1800	13.85	11,700				

01632900 SMITH CREEK NEAR NEW MARKET, VA.

LOCATION.--38°41'36", long 78°38'35", Shenandoah County, on left bank 25 ft (8 m) upstream from bridge on State Highway 616, 3.6 mi (5.8 km) north of New Market, and 4.4 mi (7.1 km) upstream from mouth.

DRAINAGE AREA.--93.2 mi^2 (241.4 km^2).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 881.50 ft (268.681 m) above mean sea level. Prior to Aug. 2, 1963, on right bank a short distance downstream, at datum 0.71 ft (0.216 m) higher.

AVERAGE DISCHARGE.--14 years, 69.7 ft^3/s or 1.974 m^3/s (10.16 in/yr or 258 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,920 ft^3/s (111 m^3/s) Dec. 26 (gage height, 11.08 ft or 3.377 m), from rating curve extended as explained below; minimum daily, 14 ft^3/s (0.40 m^3/s) Aug. 30, Sept. 24.

Period of record: Maximum discharge, 10,600 ft^3/s (300 m^3/s) Oct. 6, 1972 (gage height, 16.38 ft or 4.993 m), from rating curve extended above 2,300 ft^3/s (65.1 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 7.2 ft^3/s (0.21 m^3/s) Jan. 20, 1966.

Flood of Oct. 1, 1959, reached a stage of 10.7 ft (3.26 m), from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	35	29	167	119	62	84	44	52	36	21	18
2	41	32	27	147	114	66	77	44	787	34	21	15
3	38	29	28	141	113	63	71	52	296	32	22	15
4	28	27	28	151	106	59	129	46	161	32	21	20
5	25	31	33	139	100	57	136	44	124	32	22	18
6	23	32	53	131	97	57	107	45	103	34	21	18
7	24	28	44	124	96	59	94	42	93	32	20	35
8	26	28	41	114	94	58	94	41	85	29	19	26
9	25	32	138	114	93	55	98	42	80	27	19	21
10	25	32	157	131	87	52	88	41	73	26	22	19
11	24	32	102	186	86	51	80	38	66	26	23	37
12	23	29	81	173	84	54	76	168	61	25	21	30
13	23	28	72	140	85	57	76	266	58	24	20	21
14	23	28	70	129	85	56	75	117	56	24	19	16
15	23	28	65	125	80	54	72	91	53	24	19	15
16	22	28	62	119	77	54	66	82	56	23	18	16
17	21	27	64	112	76	57	54	68	56	22	18	16
18	21	27	70	104	73	53	62	63	50	22	18	16
19	21	28	54	101	72	52	60	60	47	22	18	15
20	21	27	98	98	72	54	58	56	47	22	18	15
21	22	26	640	332	66	76	55	52	44	22	18	15
22	21	26	266	238	72	102	53	48	44	21	19	15
23	21	25	179	173	77	80	58	50	54	21	19	15
24	21	24	153	155	70	74	53	46	55	21	19	14
25	21	25	133	205	70	66	54	45	46	20	18	15
26	21	24	1,570	179	65	63	49	42	42	20	19	15
27	21	25	1,180	179	63	61	48	41	41	22	18	15
28	21	28	324	155	63	59	46	41	44	22	32	15
29	101	35	245	145	------	58	45	38	45	23	30	15
30	58	32	205	134	------	77	44	41	41	26	14	15
31	41	------	179	126	------	106	------	39	------	23	17	------
TOTAL	870	858	6,390	4,667	2,355	1,952	2,172	1,933	2,860	789	623	551
MEAN	28.1	28.6	206	151	84.1	63.0	72.4	62.4	95.3	25.5	20.1	18.4
MAX	101	35	1,570	332	119	106	136	266	787	36	32	37
MIN	21	24	27	98	63	51	44	38	41	20	14	14
CFSM	.30	.31	2.21	1.62	.90	.68	.78	.67	1.02	.27	.22	.20
IN	.35	.34	2.55	1.86	.94	.78	.87	.77	1.14	.31	.25	.22

CAL YR 1973 TOTAL 38,080 MEAN 104 MAX 1,570 MIN 21 CFSM 1.12 IN 15.20
WTR YR 1974 TOTAL 26,020 MEAN 71.3 MAX 1,570 MIN 14 CFSM .77 IN 10.39

PEAK DISCHARGE (BASE, 650 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1230	6.62	905	6- 2	1700	8.16	1,550
12-26	2000	11.08	3,920				

01633000 NORTH FORK SHENANDOAH RIVER AT MOUNT JACKSON, VA.

LOCATION.--Lat 38°44'44", long 78°38'21", Shenandoah County, on downstream side near center of span of bridge on State Highway 698 at Mount Jackson and 0.3 mi (0.5 km) downstream from Mill Creek.

DRAINAGE AREA.--506 mi^2 (1,311 km^2).

PERIOD OF RECORD.--October 1943 to current year.

GAGE.--Nonrecording gage and crest-stage gage. Datum of gage is 838.55 ft (255.590 m) above mean sea level.

AVERAGE DISCHARGE.--31 years, 370 ft^3/s or 10.48 m^3/s (9.93 in/yr or 252 mm/yr).

EXTREMES.--Current year: Maximum discharge, 16,100 ft^3/s (456 m^3/s) Dec. 26 (gage height, 14.85 ft or 4.526 m); minimum observed, 27 ft^3/s (0.76 m^3/s) Aug. 8, Sept. 21.

Period of record: Maximum discharge, 40,500 ft^3/s (1,150 m^3/s) Oct. 6, 1972 (gage height, 18.10 ft or 5.517 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s) on basis of peak runoff for flood in October 1942 for stations at Cootes Store and near Strasburg; minimum observed, 7.0 ft^3/s (0.20 m^3/s) Sept. 3, 1966 (gage height, 1.97 ft or 0.600 m).

Flood in October 1942 reached a stage of 20.2 ft (6.16 m) from floodmarks (discharge, about 80,000 ft^3/s or 2,270 m^3/s, from rating curve extended as explained above).

REMARKS.--Records good. Some diversion during low flow by irrigation at points above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1382: 1945, 1948-50(M), 1951-53(P), 1954(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	680	122	864	592	326	517	160	213	250	92	53
2	159	565	116	808	542	348	492	157	9,180	214	69	41
3	485	436	113	670	542	371	442	192	5,100	184	66	57
4	324	345	110	670	492	371	638	174	1,750	167	55	44
5	233	324	125	618	442	371	1,390	164	1,040	160	69	89
6	179	324	303	592	418	371	864	167	696	157	59	132
7	153	303	282	542	394	348	670	153	542	153	34	283
8	137	282	233	517	394	348	618	150	467	144	28	195
9	150	282	485	492	371	348	618	160	418	135	36	135
10	324	263	650	567	348	326	560	157	371	123	57	109
11	211	226	485	864	326	304	500	147	326	114	66	502
12	166	211	389	1,040	326	326	467	986	304	106	76	326
13	146	200	366	808	326	326	442	2,190	262	98	64	192
14	128	190	345	752	394	304	418	1,160	214	82	74	150
15	116	179	324	670	442	304	371	696	226	64	82	117
16	105	172	345	618	418	348	348	542	222	59	95	79
17	99	166	345	567	418	348	324	442	234	55	114	71
18	94	159	324	517	371	304	283	371	211	53	109	62
19	94	153	303	467	348	304	283	326	226	48	98	53
20	88	146	282	442	348	304	258	283	167	76	89	30
21	88	137	3,980	1,160	348	304	242	250	203	74	82	27
22	83	131	2,160	1,380	326	371	234	238	167	71	100	55
23	81	125	1,440	980	418	442	238	230	492	69	89	74
24	78	125	1,160	864	394	442	226	214	394	66	74	59
25	78	119	860	752	418	394	214	188	371	64	82	57
26	78	122	8,030	926	371	371	199	177	348	66	66	53
27	78	130	8,070	1,040	348	348	184	170	304	69	57	55
28	76	137	2,840	922	348	326	181	157	258	74	42	48
29	967	131	1,830	864	------	304	174	147	250	69	33	44
30	1,000	128	1,230	752	------	394	167	132	304	76	36	39
31	800	------	922	644	------	567	------	120	------	92	30	------
TOTAL	6,892	6,891	38,569	23,369	11,223	10,963	12,542	10,800	25,260	3,232	2,123	3,231
MEAN	222	230	1,244	754	401	354	418	348	842	104	68.5	138
MAX	1,000	680	8,070	1,380	592	567	1,390	2,190	9,180	250	114	502
MIN	76	119	110	442	326	304	167	120	167	48	28	27
CFSM	.44	.45	2.46	1.49	.79	.70	.83	.69	1.66	.21	.14	.21
IN	.51	.51	2.84	1.72	.83	.81	.92	.79	1.86	.24	.16	.24

CAL YR 1973 TOTAL 225,645 MEAN 618 MAX 8,070 MIN 69 CFSM 1.22 IN 16.59
WTR YR 1974 TOTAL 155,095 MEAN 425 MAX 9,180 MIN 27 CFSM .84 IN 11.40

PEAK DISCHARGE (BASE, 5,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	UNKNOWN	-	UNKNOWN	6- 2	1800	14.38	14,900
12-26	UNKNOWN	14.85	16,100				

01634000 NORTH FORK SHENANDOAH RIVER NEAR STRASBURG, VA.

LOCATION.--Lat 38°58'36", long 78°20'11", Warren County, on right bank at downstream side of bridge on State Highway 55, 1.5 mi (2.4 km) southeast of Strasburg, 2.2 mi (3.5 km) upstream from Cedar Creek, and 10 mi (16 km) upstream from confluence with South Fork.

DRAINAGE AREA.--768 mi² (1,989 km²).

PERIOD OF RECORD.--March 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 494.03 ft (150.580 m) above mean sea level. Prior to Sept. 21, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years, 572 ft³/s or 16.20 m³/s (10.11 in/yr or 257 mm/yr).

EXTREMES.--Current year: Maximum discharge, 18,000 ft³/s (510 m³/s) Dec. 27 (gage height, 17.33 ft or 5.282 m); minimum, 126 ft³/s (3.57 m³/s) Sept. 30 (gage height, 1.95 ft or 0.594 m).
Period of record: Maximum discharge, 100,000 ft³/s (2,830 m³/s) Oct. 16, 1942 (gage height, 31.2 ft or 9.51 m, from high-water mark in gage well), from rating curve extended above 46,000 ft³/s (1,300 m³/s); minimum, 6.0 ft³/s (0.17 m³/s) Feb. 9, 1934 (gage height, 1.52 ft or 0.463 m); minimum daily, 41 ft³/s (1.16 m³/s) Sept. 26, Oct. 1, 1930.
Maximum stage since at least 1870, that of Oct. 16, 1942.

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 951: 1936(M). WSP 1001: 1931. WSP 1171: 1929(M), 1933(M), 1936-37. WSP 1302: 1928(M), 1930(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	892	219	1,350	876	500	804	320	393	497	200	186
2	200	760	210	1,170	800	508	751	309	2,770	422	181	183
3	242	654	204	1,010	756	525	702	317	12,000	373	174	176
4	678	551	198	952	723	553	844	335	3,640	334	167	173
5	471	486	207	922	669	535	1,360	338	1,930	301	162	197
6	350	436	212	844	619	527	1,460	318	1,300	281	157	214
7	286	453	304	785	585	525	1,160	307	1,000	282	154	234
8	252	426	377	742	560	522	980	303	830	277	150	394
9	233	406	477	698	571	509	923	298	723	257	149	462
10	225	382	633	753	545	490	895	325	693	240	159	329
11	353	370	859	1,070	521	475	792	310	646	227	152	282
12	343	340	661	1,540	506	472	727	419	557	213	176	364
13	253	313	566	1,370	501	473	699	2,760	500	204	178	537
14	248	296	507	1,140	568	485	679	2,220	455	197	175	374
15	222	285	482	1,010	625	463	647	1,290	428	192	166	297
16	203	279	474	932	652	464	608	947	496	187	235	258
17	190	267	493	858	629	474	563	785	494	175	192	222
18	181	257	521	768	604	481	528	637	458	171	187	202
19	176	247	429	699	568	457	501	581	467	171	284	184
20	172	236	481	654	546	443	480	519	418	171	227	174
21	169	230	2,710	823	532	464	460	473	392	156	194	171
22	168	224	5,840	1,810	517	516	435	430	377	162	185	166
23	165	217	2,530	1,560	532	648	423	419	392	159	171	158
24	163	215	1,710	1,290	608	604	418	406	426	150	167	149
25	161	209	1,370	1,240	570	585	406	390	518	159	159	145
26	160	206	1,870	1,450	559	551	392	368	522	163	161	144
27	158	202	14,000	1,440	534	512	379	339	479	185	186	142
28	152	207	6,380	1,370	511	489	362	317	440	170	193	141
29	480	221	3,040	1,210	------	467	350	308	424	172	166	139
30	1,220	220	2,120	1,090	------	509	337	304	478	341	173	134
31	1,200	------	1,630	964	------	671	------	308	------	238	195	------
TOTAL	9,682	10,487	51,714	33,514	16,787	15,909	20,065	17,701	34,636	7,248	5,576	6,931
MEAN	312	350	1,668	1,081	600	513	669	571	1,155	234	180	231
MAX	1,220	892	14,000	1,810	876	671	1,460	2,760	12,000	497	284	537
MIN	158	202	198	654	501	443	337	298	377	159	149	134
CFSM	.41	.46	2.17	1.41	.78	.67	.87	.74	1.50	.30	.23	.30
IN	.47	.51	2.50	1.62	.81	.77	.97	.86	1.58	.35	.27	.34

CAL YR 1973 TOTAL 334,591 MEAN 917 MAX 14,000 MIN 156 CFSM 1.19 IN 16.21
WTR YR 1974 TOTAL 230,250 MEAN 631 MAX 14,000 MIN 134 CFSM .82 IN 11.15

PEAK DISCHARGE (BASE, 6,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0315	10.65	8,080	6- 3	1045	15.83	15,400
12-27	1630	17.33	18,000				

01634500 CEDAR CREEK NEAR WINCHESTER, VA.

LOCATION.--Lat 39°04'52", long 78°19'47", Frederick County, on left bank 0.2 mi (0.3 km) upstream from Fawcett Run, 0.3 mi (0.5 km) upstream from bridge on State Highway 628, 1.3 mi (2.1 km) downstream from Froman Run, and 11.4 mi (18.3 km) southwest of Winchester.

DRAINAGE AREA.--103 mi^2 (267 km^2).

PERIOD OF RECORD.--June 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 647.09 ft (197.233 m) above mean sea level.

AVERAGE DISCHARGE.--37 years, 87.3 ft^3/s or 2.472 m^3/s (11.51 in/yr or 292 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,320 ft^3/s (94.0 m^3/s) June 2 (gage height, 8.80 ft or 2.682 m); minimum, 8.8 ft^3/s (0.25 m^3/s) Sept. 25 (gage height, 1.22 ft or 0.372 m).

Period of record: Maximum discharge, 22,000 ft^3/s (623 m^3/s) Oct. 15, 1942 (gage height, 27.0 ft or 8.23 m, from floodmarks), from rating curve extended above 15,000 ft^3/s (425 m^3/s); minimum, 1.8 ft^3/s (0.051 m^3/s) Feb. 19, 1941, Dec. 7, 1958, result of freezeups; minimum gage height, 1.04 ft (0.317 m) Feb. 19, 1941; minimum daily discharge, 2.8 ft^3/s (0.079 m^3/s) Sept. 7, 1964, Sept. 3, 4, 7, 8, 1966.

Flood of Mar. 17, 1936, reached a stage of about 25 ft or 7.6 m (discharge, about 18,000 ft^3/s or 510 m^3/s), from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	49	22	173	89	57	199	48	72	70	15	13
2	33	41	21	142	84	72	164	47	1,560	56	12	16
3	35	37	21	129	87	91	133	55	630	46	14	18
4	22	32	21	137	76	82	299	50	286	38	14	36
5	19	38	25	125	68	77	280	45	184	34	13	17
6	16	50	34	114	61	73	206	45	135	35	12	16
7	16	43	29	106	64	73	170	43	109	33	12	62
8	16	40	25	94	66	72	164	40	97	30	11	34
9	17	37	116	91	58	66	223	42	91	26	11	22
10	19	34	131	212	52	64	179	46	79	26	11	20
11	17	33	83	334	53	60	151	41	86	23	11	26
12	17	34	64	268	54	66	135	249	62	20	12	26
13	19	30	56	186	70	66	157	328	54	18	14	22
14	17	29	57	157	131	60	157	175	48	17	12	20
15	15	29	53	144	104	56	157	129	45	17	10	18
16	16	29	48	131	94	57	118	102	57	17	11	16
17	15	27	42	112	91	64	106	87	61	16	13	15
18	16	26	54	98	83	57	98	79	47	15	22	14
19	15	26	53	93	80	56	94	106	38	15	13	13
20	16	25	63	90	79	55	87	89	35	14	13	13
21	16	24	660	284	68	75	83	72	42	13	11	13
22	16	24	316	250	73	104	77	65	40	12	17	16
23	16	24	204	184	77	86	80	65	70	12	15	15
24	17	24	164	153	68	80	73	60	98	14	13	12
25	17	24	137	164	65	72	68	53	70	14	13	11
26	17	24	1,350	151	53	69	62	48	61	13	16	11
27	17	24	1,190	151	55	66	59	45	62	17	16	11
28	20	26	496	131	57	64	56	42	84	16	15	11
29	386	26	325	118	------	64	54	40	114	17	14	11
30	109	23	239	104	------	192	52	43	87	17	14	9.7
31	64	------	190	97	------	319	------	42	------	14	13	------
TOTAL	1,069	932	6,289	4,723	2,060	2,515	3,938	2,421	4,474	725	413	557.7
MEAN	34.5	31.1	203	152	73.6	81.1	131	78.1	149	23.4	13.3	18.6
MAX	386	50	1,350	334	131	319	299	328	1,560	70	22	62
MIN	15	23	21	90	52	55	52	40	35	12	10	9.7
CFSM	.34	.30	1.97	1.48	.71	.79	1.27	.76	1.45	.23	.13	.18
IN	.39	.34	2.27	1.71	.74	.91	1.42	.87	1.62	.26	.15	.20

CAL YR 1973 TOTAL 44,568.0 MEAN 122 MAX 1,350 MIN 13 CFSM 1.18 IN 16.10
WTR YR 1974 TOTAL 30,116.7 MEAN 82.5 MAX 1,560 MIN 9.7 CFSM .80 IN 10.88

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	1030	4.89	1,090	6- 2	1130	8.80	3,320
12-26	2030	8.15	2,960				

01635500 PASSAGE CREEK NEAR BUCKTON, VA.

LOCATION.--38°57'29", long 78°16'01", Warren County, on right bank 350 ft (107 m) upstream from bridge on State Highway 55, 1.2 mi (1.9 km) south of Buckton railroad station, 1.4 mi (2.3 km) upstream from mouth, and 4.2 mi (6.8 km) west of Riverton.

DRAINAGE AREA.--87.8 mi^2 (227.4 km^2).

PERIOD OF RECORD.--October 1905 to July 1906 (gage heights only), April 1932 to current year. Prior to October 1966, published as "at Buckton".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 525.14 ft (160.063 m) above mean sea level. October 1905 to July 1906, nonrecording gage at site 1 mi (1.6 km) downstream at different datum. Apr. 4, 1932, to Oct. 7, 1937, nonrecording gage at site 350 ft (107 m) downstream at different datum.

AVERAGE DISCHARGE.--42 years, 67.3 ft^3/s or 1.906 m^3/s (10.41 in/yr or 264 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,220 ft^3/s (120 m^3/s) June 2 (gage height, 10.06 ft or 3.066 m); minimum, 3.5 ft^3/s (0.099 m^3/s) Sept. 30 (gage height, 2.98 ft or 0.908 m).

Period of record: Maximum discharge, 21,000 ft^3/s (595 m^3/s) Oct. 15, 1942 (gage height, 15.5 ft or 4.72 m, from high-water mark in well), from rating curve extended above 5,200 ft^3/s (147 m^3/s); minimum observed, 0.1 ft^3/s (0.003 m^3/s) Aug. 5, 1932.

REMARKS.--Records good. Occasional diurnal fluctuation during low flow caused by State Fish Hatchery 2 mi (3 km) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	36	19	135	88	44	132	28	71	37	8.3	11
2	16	30	17	116	80	47	114	27	2,050	26	6.7	9.1
3	28	26	16	104	78	61	130	31	1,330	21	10	8.3
4	20	23	15	125	71	58	156	37	356	17	8.8	9.4
5	14	25	17	120	63	55	268	30	209	15	7.3	10
6	10	31	22	104	57	53	181	28	154	15	6.2	9.4
7	9.4	27	24	94	55	53	147	28	120	16	5.6	28
8	8.6	22	20	82	55	55	132	26	104	14	5.4	30
9	9.4	22	176	78	50	53	151	25	90	13	7.6	17
10	9.1	23	181	120	44	52	137	40	74	11	12	13
11	8.8	22	90	200	48	52	114	38	65	10	14	13
12	8.0	19	63	195	50	52	104	198	50	9.4	8.8	15
13	8.0	17	53	139	65	55	100	650	42	8.3	8.0	13
14	7.6	16	50	118	107	53	100	620	38	7.8	8.3	10
15	6.9	16	43	111	92	49	96	147	34	7.3	6.9	9.1
16	6.7	16	39	102	80	49	84	132	34	7.6	10	8.8
17	6.8	15	40	90	76	60	74	100	34	6.5	12	8.0
18	6.9	15	46	78	69	61	69	82	29	6.2	12	7.3
19	6.9	14	42	72	65	57	65	96	26	5.8	8.0	6.9
20	7.0	14	52	69	63	55	58	76	27	5.3	7.1	6.7
21	7.2	13	773	274	57	58	55	61	27	5.0	6.7	6.7
22	7.4	13	328	292	53	118	50	55	23	4.9	10	6.5
23	7.6	13	181	173	65	94	49	63	38	5.0	7.1	6.7
24	7.8	13	149	142	57	84	52	72	67	5.2	7.8	6.0
25	8.4	13	123	178	53	72	47	55	69	5.4	6.9	5.0
26	9.6	14	714	173	50	63	43	44	46	5.8	6.0	4.6
27	13	12	1,440	166	46	61	39	39	55	10	11	5.2
28	17	14	372	142	44	57	37	34	42	10	11	5.8
29	450	26	237	125	------	55	32	31	50	10	8.6	5.8
30	120	26	184	109	------	67	30	38	50	19	9.7	4.2
31	60	------	147	98	------	176	------	38	------	13	10	------
TOTAL	916.1	586	5,673	4,124	1,781	1,979	2,816	2,969	5,404	352.5	267.8	299.5
MEAN	29.6	19.5	183	133	63.6	63.8	93.9	95.8	180	11.4	8.64	9.98
MAX	450	36	1,440	292	107	176	268	650	2,050	37	14	30
MIN	6.7	12	15	69	44	44	30	25	23	4.9	5.4	4.2
CFSM	.34	.22	2.08	1.51	.72	.73	1.07	1.09	2.05	.13	.10	.11
IN	.39	.25	2.40	1.75	.75	.84	1.19	1.26	2.29	.15	.11	.13

CAL YR 1973 TOTAL 32,068.6 MEAN 87.9 MAX 1,440 MIN 4.8 CFSM 1.00 IN 13.59
WTR YR 1974 TOTAL 27,167.9 MEAN 74.4 MAX 2,050 MIN 4.2 CFSM .85 IN 11.51

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0400	8.10	2,370	6- 2	1930	10.06	4,220
5-13	0630	6.31	1,040				

01636210 HAPPY CREEK AT FRONT ROYAL, VA.

LOCATION.--Lat 38°54'20", long 78°11'10", Warren County, on left bank 30 ft (9 m) upstream from highway bridge, 1.0 mi (1.6 km) south of Front Royal, 2.3 mi (3.7 km) upstream from Leach Run, and 2.9 mi (4.7 km) upstream from mouth.

DRAINAGE AREA.--14.0 mi² (36.3 km²).

PERIOD OF RECORD.--June 1948 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 610.12 ft (185.965 m) above mean sea level. Prior to Oct. 1, 1949, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

AVERAGE DISCHARGE.--26 years, 14.1 ft³/s or 0.399 m³/s (13.68 in/yr or 347 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 995 ft³/s (28.2 m³/s) Oct. 29 (gage height, 4.93 ft or 1.503 m), from rating curve extended above 460 ft³/s (13.0 m³/s); minimum, 0.36 ft³/s (0.010 m³/s) Sept. 30 (gage height, 1.26 ft or 0.384 m).

Period of record: Maximum discharge observed, 2,490 ft³/s (70.5 m³/s) Oct. 5, 1948 (gage height, 6.40 ft or 1.951 m, site and datum then in use), from rating curve extended above 120 ft³/s (3.40 m³/s); no flow during several periods between Aug. 25 and Sept. 4, 1953.

Flood in October 1942 reached a stage of about 14 ft (4.3 m), site and datum in use 1948-49, from information by local residents.

REMARKS.--Records good. Some diversion above station for Front Royal municipal water supply. Moderate diurnal fluctuation caused by municipal reservoir operation. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	11	2.9	29	16	9.4	40	6.7	28	6.9	1.0	2.1
2	17	7.7	2.8	23	15	12	32	6.6	341	5.8	.98	1.4
3	6.6	6.0	2.7	21	14	10	26	8.6	138	5.0	1.3	4.9
4	3.4	4.9	2.7	22	13	10	36	6.9	74	4.5	1.1	6.4
5	2.4	8.4	4.3	19	12	9.8	33	6.4	51	4.7	1.3	2.2
6	1.9	6.8	4.7	17	11	9.5	28	7.1	39	5.2	.86	4.3
7	1.7	5.7	3.9	16	12	9.8	24	6.5	32	5.0	.86	19
8	1.8	5.1	3.4	14	12	8.8	25	5.9	28	4.2	.93	6.0
9	2.3	7.4	44	15	12	8.4	25	7.0	23	3.7	1.4	3.6
10	2.2	5.4	35	25	12	8.3	21	7.0	20	3.4	4.5	2.8
11	2.0	4.8	23	34	10	7.8	18	5.7	17	3.3	1.8	3.4
12	1.8	4.5	16	33	11	9.1	17	68	14	2.8	1.2	2.4
13	1.8	4.3	13	28	13	8.1	18	65	13	2.7	1.5	1.6
14	1.7	4.1	12	25	18	6.3	16	37	13	2.4	1.0	1.3
15	1.4	4.2	9.8	23	15	7.4	15	31	12	2.3	.90	1.1
16	1.5	4.3	9.0	21	14	9.2	13	26	15	2.3	2.6	.98
17	1.5	3.5	8.8	18	14	9.5	12	19	13	2.2	6.0	1.1
18	1.5	3.4	10	15	13	8.1	11	16	10	1.9	3.4	.92
19	1.7	3.4	8.4	14	13	8.3	11	26	9.0	1.8	1.6	.90
20	1.6	3.1	37	13	12	7.7	10	20	9.5	1.9	1.7	.84
21	1.4	3.2	144	38	11	13	9.8	15	9.4	1.6	1.2	.85
22	1.6	3.3	66	39	14	12	9.6	14	12	1.5	12	1.0
23	2.1	3.0	46	33	12	11	10	33	29	1.6	3.4	.79
24	1.7	3.0	34	30	11	11	9.4	26	19	2.7	2.2	.69
25	1.7	3.1	28	30	11	9.7	8.9	19	12	2.0	1.6	.72
26	1.6	2.9	160	27	9.5	9.3	8.3	16	11	2.1	1.4	.68
27	1.5	3.3	190	26	9.6	9.4	7.8	14	10	2.8	1.2	.63
28	3.4	4.3	87	24	9.5	8.7	7.5	11	10	2.1	1.1	.65
29	161	4.0	59	22	-------	9.9	7.3	11	11	1.6	5.6	.85
30	27	3.2	44	19	-------	38	7.0	12	8.5	2.8	3.1	.67
31	14	-------	35	18	-------	51	-------	11	-------	1.5	3.8	-------
TOTAL	274.6	141.3	1,146.4	732	349.6	360.7	516.6	564.4	1,031.4	94.3	72.53	74.77
MEAN	8.86	4.71	37.0	23.6	12.5	11.6	17.2	18.2	34.4	3.04	2.34	2.49
MAX	151	11	190	39	18	51	40	68	341	6.9	12	19
MIN	1.4	2.9	2.7	13	9.5	6.3	7.0	5.7	8.5	1.5	.86	.63
(*)	.38	.49	.62	.57	.64	.53	.69	.75	.84	.70	.65	.63
MEAN♦	9.24	5.20	37.6	24.2	13.1	12.1	17.9	19.0	35.2	3.74	2.99	3.12
CFSM♦	.66	.37	2.69	1.73	.94	.86	1.28	1.36	2.51	.27	.21	.22
IN♦	.76	.41	3.10	1.99	.97	1.00	1.43	1.57	2.81	.31	.25	.25

CAL YR 1973 TOTAL 6,482.50 MEAN 17.8 MAX 190 MIN .98 MEAN♦ 18.4 CFSM♦ 1.31 IN♦ 17.78
WTR YR 1974 TOTAL 5,358.60 MEAN 14.7 MAX 341 MIN .63 MEAN♦ 15.3 CFSM♦ 1.09 IN♦ 14.84

* DIVERSION, IN CUBIC FEET PER SECOND, BY TOWN OF FRONT ROYAL.
♦ ADJUSTED FOR DIVERSION.

01636500 SHENANDOAH RIVER AT MILLVILLE, W. VA.

LOCATION.--Lat 39°16'55", long 77°47'22", Jefferson County, on left bank 0.4 mi (0.6 km) downstream from Cattail Run, 1.0 mi (1.6 km) upstream from Millville, 5.0 mi (8.0 km) upstream from Harpers Ferry, and at mile 5.0.

DRAINAGE AREA.--3,040 mi^2 (7,874 km^2).

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft (89.306 m) above mean sea level, adjustment of 1912. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi (1.3 km) downstream at datum 0.32 ft (0.098 m) higher.

AVERAGE DISCHARGE.--59 years (1895-1908, 1928-74), 2,657 ft^3/s or 75.25 m^3/s (11.87 in/yr or 301 mm/yr).

EXTREMES.--Current year: Maximum discharge, 46,200 ft^3/s (1,310 m^3/s) Dec. 28 (gage height, 14.78 ft or 4.505 m); minimum, 614 ft^3/s (17.4 m^3/s) July 22; minimum daily, 670 ft^3/s (19.0 m^3/s) July 22, 23; minimum gage height, 1.55 ft (0.472 m) Oct. 27.

Period of record: Maximum discharge, 230,000 ft^3/s (6,510 m^3/s) Oct. 16, 1942 (gage height, 32.4 ft or 9.88 m, from floodmarks); minimum, about 59 ft^3/s (1.67 m^3/s) Oct. 4, 1930 (gage height, 0.39 ft or 0.119 m); minimum daily, 194 ft^3/s (5.49 m^3/s) July 24, 1930.

Flood in 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft or 8.035 m (discharge, 151,000 ft^3/s or 4,280 m^3/s).

REMARKS.--Records good. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Co., 0.5 mi (0.8 km) upstream from station.

REVISIONS (WATER YEARS).--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-2, 1905, 1907-8, 1932(M), 1935(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	842	3,370	1,120	7,280	4,560	2,330	4,190	1,680	1,500	1,590	902	822
2	960	2,900	1,110	6,330	4,220	2,340	4,070	1,540	4,500	1,560	830	928
3	1,100	2,600	1,080	5,730	3,930	2,390	3,660	1,570	19,500	1,400	798	982
4	2,000	2,440	1,080	5,210	3,700	2,420	3,610	1,650	19,500	1,290	734	946
5	1,700	2,260	1,070	5,050	3,490	2,370	4,810	1,620	10,000	1,110	702	822
6	1,300	2,080	1,070	4,820	3,280	2,280	5,490	1,620	6,690	1,310	814	854
7	1,200	1,900	1,110	4,420	3,090	2,250	5,660	1,690	4,980	1,120	750	1,040
8	1,100	1,870	1,360	4,120	2,980	2,230	5,050	1,310	3,990	1,070	718	1,270
9	1,000	1,760	2,410	3,870	2,800	2,270	4,760	1,480	3,380	1,040	742	1,330
10	1,000	1,700	3,020	3,770	2,700	2,210	4,570	1,530	2,940	1,070	870	2,000
11	1,200	1,570	4,640	4,640	2,690	2,120	4,180	1,550	2,760	1,060	822	1,860
12	1,200	1,620	4,120	6,670	2,590	2,040	3,750	1,720	2,430	982	766	1,530
13	1,100	1,530	3,300	7,260	2,530	2,070	3,520	4,160	2,100	894	798	1,460
14	1,000	1,430	2,840	6,270	2,690	2,110	3,390	10,600	1,890	846	846	1,630
15	920	1,260	2,560	5,460	2,880	2,290	3,250	8,450	1,730	846	782	1,560
16	890	1,310	2,400	4,950	2,760	2,370	3,050	5,840	1,710	814	734	1,230
17	840	1,300	2,300	4,570	2,680	2,360	2,850	4,580	1,680	838	937	1,130
18	810	1,260	2,200	4,160	2,580	2,360	2,720	3,740	1,710	806	1,210	1,080
19	816	1,200	2,100	3,750	2,490	2,330	2,540	3,160	1,610	758	919	987
20	813	1,140	2,100	3,460	2,440	2,320	2,420	3,190	1,590	758	806	941
21	799	1,220	3,740	3,520	2,350	2,330	2,290	2,680	1,480	742	814	926
22	798	1,050	19,600	6,270	2,300	2,590	2,200	2,350	1,440	670	782	905
23	796	1,080	17,500	9,290	2,300	3,300	2,180	2,320	1,510	670	1,070	863
24	791	1,100	9,990	7,130	2,330	4,210	2,180	2,290	1,710	694	946	808
25	794	1,110	7,400	6,320	2,680	3,700	2,040	2,050	1,840	694	766	790
26	816	1,000	6,980	6,370	2,590	3,330	2,020	1,840	1,800	694	782	776
27	740	1,070	25,000	6,590	2,500	3,050	1,940	1,810	1,830	702	774	738
28	788	1,030	40,600	6,410	2,440	2,790	1,770	1,710	1,670	774	766	727
29	2,110	1,080	19,500	6,080	------	2,650	1,780	1,480	1,570	774	838	760
30	5,190	1,100	12,200	5,520	------	3,130	1,710	1,550	1,610	814	1,040	732
31	4,150	------	9,150	5,030	------	4,370	------	1,560	------	1,020	919	------
TOTAL	39,563	47,340	215,450	170,320	80,570	80,910	97,650	84,320	112,650	29,410	25,977	32,427
MEAN	1,276	1,578	6,950	5,494	2,878	2,610	3,255	2,720	3,755	949	838	1,081
MAX	5,190	3,370	40,600	9,290	4,560	4,370	5,660	10,600	19,500	1,590	1,210	2,000
MIN	740	1,000	1,070	3,460	2,300	2,040	1,710	1,310	1,440	670	702	727
CFSM	.42	.52	2.29	1.81	.95	.86	1.07	.89	1.24	.31	.28	.36
IN	.48	.58	2.64	2.08	.99	.99	1.19	1.03	1.38	.36	.32	.40

CAL YR 1973 TOTAL 1,385,442 MEAN 3,796 MAX 40,600 MIN 732 CFSM 1.25 IN 16.95
WTR YR 1974 TOTAL 1,016,587 MEAN 2,785 MAX 40,600 MIN 670 CFSM .92 IN 12.44

PEAK DISCHARGE (BASE, 15,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1830	10.93	25,200	6- 4	0300	11.08	25,900
12-28	0845	14.78	46,200				

01638480 CATOCTIN CREEK AT TAYLORSTOWN, VA.

LOCATION.--Lat 39°15'16", long 77°34'36", Loudoun County, on right bank at upstream side of bridge on State Highway 663 at Taylorstown and 3.2 mi (5.1 km) downstream from Milltown Creek.

DRAINAGE AREA.--89.6 mi^2 (232.1 km^2).

PERIOD OF RECORD.--August 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 249.15 ft (75.941 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 1,920 ft^3/s (54.4 m^3/s) Dec. 26 (gage height, 6.48 ft or 1.975 m); minimum, 6.3 ft^3/s (0.18 m^3/s) Aug. 16, 28 (gage height, 0.88 ft or 0.268 m).

Period of record: Maximum discharge, 23,800 ft^3/s (674 m^3/s) June 22, 1972 (gage height, 23.83 ft or 7.263 m, from floodmarks), from rating curve extended above 7,400 ft^3/s (210 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 6.3 ft^3/s (0.18 m^3/s) Aug. 16, 28, 1974 (gage height, 0.88 ft or 0.268 m).

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	18	14	130	83	51	216	50	49	32	12	19
2	40	16	12	112	80	51	173	45	209	27	9.0	31
3	53	14	12	95	88	62	140	55	171	24	8.5	27
4	25	14	12	146	80	54	222	52	92	23	22	64
5	16	14	14	112	64	50	214	46	70	21	30	27
6	13	18	21	97	66	49	180	47	60	21	16	18
7	12	18	18	88	66	49	142	49	55	22	11	63
8	12	15	16	76	69	48	144	44	52	20	9.0	42
9	12	14	90	86	63	44	315	56	50	18	10	25
10	11	14	93	151	62	46	196	71	45	17	16	21
11	12	14	42	292	60	42	160	51	43	16	13	42
12	12	13	29	223	58	41	142	244	37	15	10	58
13	12	13	25	146	63	41	180	360	33	13	9.5	30
14	11	13	26	116	106	38	177	118	32	13	9.0	112
15	10	14	25	104	78	37	138	92	34	12	7.0	47
16	9.6	14	21	108	69	38	118	77	60	11	20	30
17	9.2	14	16	104	69	44	139	70	58	11	41	24
18	9.2	12	18	86	64	40	104	60	40	11	21	22
19	9.6	12	22	81	52	38	96	57	32	10	12	19
20	9.6	12	28	78	69	43	89	55	30	12	9.5	18
21	10	12	502	339	58	46	82	50	32	8.5	8.0	21
22	10	12	225	250	62	68	81	50	36	7.5	8.0	27
23	10	12	132	167	75	48	87	129	89	7.5	16	23
24	10	12	116	139	55	43	77	82	74	11	10	16
25	12	13	99	188	55	40	70	56	49	13	8.0	14
26	12	13	726	148	47	38	67	49	43	12	9.0	14
27	12	14	766	142	48	38	63	44	46	13	9.5	13
28	12	14	312	126	49	38	60	43	38	13	6.6	13
29	100	19	204	114	------	37	58	42	38	12	81	14
30	69	18	162	104	------	494	55	44	37	21	18	11
31	26	------	130	97	------	526	------	43	------	17	11	------
TOTAL	590.8	425	3,928	4,245	1,868	2,322	3,955	2,331	1,734	484.5	480.6	905
MEAN	19.1	14.2	127	137	66.7	74.9	132	75.2	57.8	15.6	15.5	30.2
MAX	100	19	766	339	106	526	315	360	209	32	81	112
MIN	9.2	12	12	76	47	37	55	42	30	7.5	6.6	11
CFSM	.21	.16	1.42	1.53	.74	.84	1.47	.84	.65	.17	.17	.34
IN	.25	.18	1.63	1.76	.78	.96	1.64	.97	.72	.20	.20	.38

CAL YR 1973	TOTAL 39,534.1	MEAN 108	MAX 1,240	MIN 7.8	CFSM 1.21	IN 16.41
WTR YR 1974	TOTAL 23,268.9	MEAN 63.8	MAX 766	MIN 6.6	CFSM .71	IN 9.66

PEAK DISCHARGE (BASE, 1,200 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	2100	6.48	1,920	3-30	2000	5.70	1,520

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD.

LOCATION.--Lat 39°16'25", long 77°32'35", Frederick County, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi (0.5 km) downstream from Catoctin Creek (Virginia), 6 mi (9.7 km) upstream from Monocacy River, and at mile 159.5.

DRAINAGE AREA.--9,651 mi^2 (24,996 km^2).

PERIOD OF RECORD.--February 1895 to current year.

GAGE.--Water-stage recorder. Datum of gage is 200.54 ft (61.125 m) above mean sea level, adjustment of 1912. Sept. 2, 1902, to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft (0.137 m) higher.

AVERAGE DISCHARGE.--79 years, 9,263 ft^3/s or 262.3 m^3/s (13.03 in/yr or 331 mm/yr).

EXTREMES.--Current year: Maximum discharge, 132,000 ft^3/s (3,740 m^3/s) Dec. 28 (gage height, 21.27 ft or 6.483 m); minimum, 1,690 ft^3/s (47.9 m^3/s) Sept. 30 (gage height, 1.03 ft or 0.314 m).

Period of record: Maximum discharge, 480,000 ft^3/s (13,600 m^3/s) Mar. 19, 1936 (gage height, 41.03 ft or 12.506 m), from rating curve extended above 300,000 ft^3/s (8,500 m^3/s) on the basis of adjustment of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow; minimum, 530 ft^3/s (15.0 m^3/s) Sept. 11, 12, 1966 (gage height, 0.27 ft or 0.082 m).

Flood of June 2, 1889, reached a stage of 40.2 ft (12.25 m) from floodmarks (discharge, about 460,000 ft^3/s or about 13,000 m^3/s, from rating curve extended as explained above).

REMARKS.--Records good. Low flow affected slightly since 1913 by Stony River Reservoir and since December 1950, by Savage River Reservoir. Low flow affected extensively at times by run-of-the-river hydroelectric plants. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,550	19,700	7,240	30,600	13,500	7,960	27,800	6,030	5,340	9,420	3,260	2,090
2	3,290	14,300	7,200	24,700	12,400	8,100	23,400	5,660	8,750	9,420	2,710	2,290
3	3,830	12,700	6,270	20,900	11,700	7,920	19,100	5,630	30,900	9,730	2,420	2,660
4	6,000	11,400	5,660	18,900	11,000	8,290	17,900	5,500	58,700	8,510	2,370	3,370
5	8,030	9,610	5,370	18,600	10,500	10,100	28,600	5,500	36,400	6,710	2,820	3,320
6	6,890	8,360	5,090	18,900	9,920	9,730	37,900	5,660	22,300	5,930	3,090	3,040
7	5,340	7,630	5,060	17,000	9,190	9,420	31,100	5,730	15,700	6,000	2,740	3,090
8	4,500	7,350	5,400	15,300	8,770	9,040	25,000	5,340	12,500	6,470	2,420	3,400
9	3,940	6,960	6,540	14,100	8,620	8,730	21,300	5,180	10,400	5,570	2,420	3,650
10	3,600	6,270	11,300	13,500	9,040	9,300	21,600	5,370	9,040	5,030	2,370	4,720
11	3,400	5,760	18,200	18,100	8,550	9,610	23,100	5,310	8,550	4,750	2,170	4,870
12	3,740	5,530	15,600	37,200	8,140	9,460	18,900	6,150	7,850	4,240	2,020	4,290
13	4,030	5,250	12,200	44,000	7,880	9,190	17,300	11,300	7,200	3,650	2,070	4,060
14	3,830	4,870	10,200	33,500	7,960	8,850	21,000	22,600	6,300	3,340	2,140	4,840
15	3,460	4,630	9,300	26,000	8,250	8,890	21,800	24,600	5,530	3,150	2,050	3,910
16	3,370	4,410	8,810	22,000	9,490	8,660	18,800	18,000	5,500	2,950	2,070	3,480
17	3,650	4,320	8,660	19,400	10,800	8,510	16,100	13,800	6,570	2,820	2,320	3,040
18	3,340	4,240	8,330	17,700	9,730	8,510	14,100	11,400	8,550	2,660	2,980	3,040
19	2,790	4,120	7,560	16,100	9,150	8,180	12,400	9,760	7,670	2,500	2,630	2,900
20	2,690	4,150	7,490	14,600	8,620	7,920	11,400	9,690	6,610	2,350	2,290	2,660
21	2,610	4,060	10,300	15,000	8,140	7,850	10,400	9,340	5,700	2,370	2,320	2,550
22	2,420	4,060	33,500	21,500	8,210	9,190	9,570	8,290	5,280	2,090	2,400	2,420
23	2,370	3,830	47,000	30,200	8,400	11,500	9,190	7,920	5,280	2,070	2,480	2,140
24	2,420	3,910	32,000	27,400	8,620	12,900	9,040	7,700	6,750	2,120	2,770	2,000
25	2,660	3,830	23,800	23,100	9,840	11,800	8,470	7,520	17,100	2,120	2,450	1,910
26	2,500	3,710	22,500	20,300	9,690	10,700	7,990	6,750	18,200	2,090	2,220	1,870
27	2,270	3,770	53,100	19,500	8,920	9,650	7,520	6,300	14,000	2,090	2,220	1,820
28	1,960	3,910	125,000	19,100	8,400	8,890	7,030	5,800	11,600	2,170	2,140	1,740
29	3,320	3,970	89,200	18,000	------	8,330	6,570	5,310	9,530	2,320	2,170	1,760
30	35,400	4,780	49,800	16,500	------	10,100	6,330	5,060	8,890	2,740	2,400	1,720
31	32,100	------	37,100	15,000	------	20,200	------	4,900	------	3,150	2,370	------
TOTAL	172,300	191,390	694,780	666,700	263,430	297,480	510,710	263,100	382,690	130,530	75,300	88,650
MEAN	5,558	6,380	22,410	21,510	9,408	9,596	17,020	8,487	12,760	4,211	2,429	2,955
MAX	35,400	19,700	125,000	44,000	13,500	20,200	37,900	24,600	58,700	9,730	3,260	4,870
MIN	1,960	3,710	5,060	13,500	7,880	7,850	6,330	4,900	5,280	2,070	2,020	1,720
CFSM	.58	.66	2.32	2.23	.97	.99	1.76	.88	1.32	.44	.25	.31
IN	.66	.74	2.68	2.57	1.02	1.15	1.97	1.01	1.48	.50	.29	.34

CAL YR 1973 TOTAL 4,847,440 MEAN 13,280 MAX 125,000 MIN 1,960 CFSM 1.38 IN 18.68
WTR YR 1974 TOTAL 3,737,060 MEAN 10,240 MAX 125,000 MIN 1,720 CFSM 1.06 IN 14.40

PEAK DISCHARGE (BASE, 35,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	1400	10.05	43,100	1-13	0400	10.62	46,700
12-23	0600	11.37	51,600	4- 6	1000	9.55	40,000
12-28	1300	21.27	132,000	6- 4	1400	13.14	64,000

01643700 GOOSE CREEK NEAR MIDDLEBURG, VA.

LOCATION.--Lat 38°59'11", long 77°47'49", Loudoun County, on right bank 250 ft (76 m) upstream from bridge on State Highway 611, 2.0 mi (3.2 km) downstream from Panther Skin Creek, and 3.4 mi (5.5 km) northwest of Middleburg.

DRAINAGE AREA.--123 mi² (319 km²).

PERIOD OF RECORD.--October 1965 to September 1967, July 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 329.80 ft (100.523 m) above mean sea level. October 1965 to September 1967 at site 300 ft (91 m) downstream at datum 0.73 ft (0.223 m) lower.

AVERAGE DISCHARGE.--7 years, 134 ft³/s or 3.795 m³/s (14.79 in/yr or 376 mm/yr).

EXTREMES.--Current year: Maximum discharge, about 1,510 ft³/s (42.8 m³/s) Dec. 26 (gage height, about 8.0 ft or 2.44 m), from reconstructed recorder graph; minimum, 8.2 ft³/s (0.23 m³/s) Aug. 16.
Period of record: Maximum discharge, 19,200 ft³/s (544 m³/s) June 22, 1972 (gage height, 27.46 ft or 8.370 m, from floodmarks), from rating curve extended above 2,900 ft³/s (82.1 m³/s) on basis of slope-area measurements at gage height 14.44 ft (4.401 m) and at peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Sept. 1-4, 8-12, 1966.

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 197+

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	83	34	348	190	116	320	73	180	85	15	27
2	112	67	32	283	181	126	260	70	660	75	12	21
3	128	58	31	271	179	122	216	93	500	65	18	125
4	67	50	32	308	163	110	330	78	330	55	22	192
5	50	60	40	255	147	101	290	70	240	60	40	61
6	40	73	65	240	145	97	249	79	190	75	20	52
7	35	56	42	227	149	110	222	73	170	65	16	225
8	34	52	36	205	149	99	253	64	150	52	13	116
9	34	59	303	218	147	93	325	83	135	46	13	78
10	35	56	204	335	133	93	247	93	125	43	74	63
11	35	49	146	410	129	88	227	68	110	46	30	61
12	34	46	116	372	127	103	211	408	95	42	19	58
13	34	44	106	310	149	99	229	510	90	35	18	45
14	33	43	106	278	181	79	205	267	75	30	16	40
15	30	42	86	267	149	74	181	205	70	27	11	35
16	30	42	79	262	141	78	163	190	95	26	14	32
17	27	36	58	238	141	92	153	149	100	25	63	30
18	27	35	89	216	129	79	143	127	90	23	47	28
19	27	36	120	205	135	78	135	133	72	22	24	26
20	27	37	114	192	135	79	127	122	100	21	18	24
21	27	37	999	485	116	101	120	101	90	20	15	24
22	27	47	600	398	147	108	113	93	85	19	73	24
23	27	34	390	325	139	88	140	130	220	16	54	23
24	27	34	292	300	126	84	125	120	190	24	27	19
25	27	35	250	335	126	79	110	100	140	23	20	18
26	27	34	827	285	106	78	102	90	140	23	88	20
27	27	34	1,210	285	116	78	97	80	150	24	30	18
28	26	42	765	255	122	76	90	75	130	23	23	18
29	480	44	540	242	------	78	86	75	105	19	36	19
30	168	35	422	220	------	514	78	74	95	29	26	16
31	104	------	360	229	------	450	------	90	------	21	35	------
TOTAL	1,839	1,400	8,494	8,799	3,997	3,650	5,547	3,983	4,922	1,159	930	1,538
MEAN	59.3	46.7	274	284	143	118	185	128	164	37.4	30.0	51.3
MAX	480	83	1,210	485	190	514	330	510	660	85	88	225
MIN	26	34	31	192	106	74	78	64	70	16	11	16
CFSM	.48	.38	2.23	2.31	1.16	.96	1.50	1.04	1.33	.30	.24	.42
IN	.56	.42	2.57	2.66	1.21	1.10	1.68	1.20	1.49	.35	.28	.47

CAL YR 1973 TOTAL 62,497 MEAN 171 MAX 1,210 MIN 26 CFSM 1.39 IN 18.90
WTR YR 1974 TOTAL 46,258 MEAN 127 MAX 1,210 MIN 11 CFSM 1.03 IN 13.99

PEAK DISCHARGE (BASE, 1,350 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	A1200	A7.82	A1,440	5-12	2200	7.58	1,370
12-26	A2130	A8.00	A1,510	6- 2	UNKNOWN	-	UNKNOWN

A ABOUT.
NOTE.--NO GAGE-HEIGHT RECORD DEC. 26, 27, MAY 23 TO JULY 22.

01644000 GOOSE CREEK NEAR LEESBURG, VA.

LOCATION.--Lat 39°01'10", long 77°34'40", Loudoun County, on left bank 400 ft (120 m) upstream from bridge on State Highway 621 at Evergreen Mills, 1.4 mi (2.3 km) downstream from Little River, 6.7 mi (10.8 km) south of Leesburg, and 10.9 mi (17.5 km) upstream from mouth.

DRAINAGE AREA.--332 mi^2 (860 km^2).

PERIOD OF RECORD.--July 1909 to April 1911, September 1911 to December 1912, January 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 248.93 ft (75.874 m) above mean sea level. July 12, 1909, to Dec. 31, 1912, nonrecording gage at site 1,000 ft (300 m) downstream at different datum. Jan. 21, 1930, to Nov. 28, 1938, nonrecording gage at site 400 ft (120 m) downstream at datum 4.20 ft (1.280 m) lower than present datum.

AVERAGE DISCHARGE.--46 years (1909-10, 1911-12, 1930-74), 304 ft^3/s or 8.609 m^3/s (12.43 in/yr or 316 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,750 ft^3/s (163 m^3/s) Dec. 27 (gage height, 9.10 ft or 2.774 m); minimum, 32 ft^3/s (0.91 m^3/s) Aug. 16 (gage height, 1.39 ft or 0.424 m).

Period of record: Maximum discharge, 78,100 ft^3/s (2,210 m^3/s) June 22, 1972 (gage height, 30.59 ft or 9.324 m, from high-water mark in gage house), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.40 ft^3/s (0.011 m^3/s) Sept. 27-30, 1941.

Flood in May or June 1889 reached a stage of about 29 ft or 8.8 m (discharge, about 45,000 ft^3/s or 1,270 m^3/s), site and datum in use 1930-38, from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 851: 1935-37. WSP 951: 1933(M), 1937. WSP 1302: 1934-35(M). WRD Va. 1970: Drainage area. WRD Va. 1972: 1937(M), 1943(M), 1951(M), 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	168	80	744	475	242	892	164	182	185	52	95
2	290	137	76	641	442	253	715	150	1,720	156	42	87
3	423	118	72	593	450	307	582	186	1,500	136	40	114
4	193	108	72	788	408	252	834	189	832	122	45	509
5	142	110	87	634	353	231	960	153	607	112	72	184
6	116	151	134	566	335	217	822	163	477	175	54	122
7	103	123	110	521	336	242	648	161	391	133	46	505
8	98	108	91	466	341	237	639	142	351	118	39	364
9	96	116	593	490	328	210	1,100	179	318	105	37	212
10	96	126	613	871	312	205	779	237	266	95	72	162
11	94	106	359	1,160	311	191	652	174	221	110	95	154
12	91	98	256	1,000	281	200	588	524	188	94	53	178
13	89	98	221	744	329	208	597	1,490	173	79	42	127
14	91	96	221	654	512	181	612	625	154	71	41	174
15	83	96	189	606	393	170	510	453	153	67	42	119
16	80	94	168	598	340	174	434	380	269	64	45	95
17	76	91	148	555	346	200	392	303	277	59	131	82
18	74	85	121	482	323	175	361	248	189	54	119	75
19	76	83	208	451	311	163	335	229	152	52	80	70
20	76	85	229	429	338	165	314	238	141	50	64	65
21	78	83	2,780	1,400	281	195	289	191	242	47	47	63
22	75	83	1,410	1,220	283	284	274	172	176	44	110	66
23	78	96	894	854	374	199	297	378	666	42	182	62
24	78	83	709	753	277	183	266	351	525	52	85	54
25	80	85	600	912	269	170	236	225	324	59	57	50
26	83	85	2,170	757	235	169	219	181	301	56	114	49
27	83	83	3,850	750	231	170	207	162	390	57	102	48
28	83	89	1,730	668	242	165	196	151	264	59	64	49
29	654	101	1,190	627	------	165	191	137	255	53	161	55
30	496	94	955	559	------	1,110	176	149	228	70	90	51
31	221	------	788	519	------	1,750	------	143	------	76	90	------
TOTAL	4,477	3,079	21,124	22,012	9,456	8,785	15,117	8,628	11,952	2,652	2,323	4,240
MEAN	144	103	681	710	338	283	504	278	398	85.5	74.9	141
MAX	654	168	3,850	1,400	512	1,750	1,100	1,490	1,720	185	182	509
MIN	74	83	72	429	231	163	176	137	141	42	37	48
CFSM	.43	.31	2.05	2.14	1.02	.85	1.52	.84	1.20	.26	.23	.42
IN	.50	.34	2.37	2.47	1.06	.98	1.69	.97	1.34	.30	.26	.48

CAL YR 1973 TOTAL 160,458 MEAN 440 MAX 3,850 MIN 66 CFSM 1.33 IN 17.98
WTR YR 1974 TOTAL 113,845 MEAN 312 MAX 3,850 MIN 37 CFSM .94 IN 12.76

PEAK DISCHARGE (BASE, 4,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1500	7.03	4,200	12-27	0330	9.10	5,750

01644291 STAVE RUN NEAR RESTON, VA.

LOCATION.--Lat 38°56'56", long 77°22'16", Fairfax County, on left bank 0.31 mi (0.50 km) upstream from mouth and 1.4 mi (2.3 km) southwest of Sunset Hills in Reston.

DRAINAGE AREA.--0.08 mi² (0.21 km²).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and trapezoidal flume. Datum of gage is 367.25 ft (111.738 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 71 ft³/s (2.01 m³/s) Aug. 4 (gage height, 2.04 ft or 0.622 m); no flow many days.
Period of record: Maximum discharge, 87 ft³/s (2.46 m³/s) June 21, 1972, from rating curve extended above 41 ft³/s (1.16 m³/s); maximum gage height, 2.04 ft (0.622 m) Aug. 4, 1974; no flow at times each year.

REMARKS.--Records fair. Water-quality records for the current year are included in this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.02	.02	.06	.01	.01	.01	.01	.23	.01	.25	.01
2	1.3	0	.02	0	.07	.16	.01	.07	1.1	.01	.33	.04
3	.01	0	.01	.46	.02	.01	.01	.20	.01	.01	.26	.90
4	.01	0	0	.37	.01	.01	.47	.01	.01	.01	.25	.05
5	.01	.21	.78	.01	.01	.01	.41	.14	.01	.08	.24	.01
6	0	0	0	.01	.07	.11	.01	.02	.02	.01	.22	.99
7	0	0	0	.01	.04	.07	.01	.01	.01	.01	.37	.67
8	0	.07	.12	0	.01	.01	.64	.01	.02	.01	.27	.01
9	.01	.17	1.6	0	.04	.01	.24	.74	.02	.21	.31	.01
10	.01	0	0	.38	.02	.01	.01	.03	.01	.46	.39	.01
11	.01	0	0	.40	.03	.07	.01	.01	.02	.25	.27	.08
12	.01	0	0	.48	.05	.06	.01	1.5	.01	.40	.27	.01
13	.01	0	.11	.01	.08	0	.40	.03	.01	.25	.27	.01
14	.01	.03	.01	.02	.05	0	.10	.01	.21	.25	.27	.15
15	0	0	0	.01	.01	0	.05	.01	.14	.25	.27	0
16	.02	0	.01	.01	.03	.10	.03	.01	1.5	.26	.53	0
17	.01	0	.01	.01	.03	.01	.03	.01	.98	.25	.37	.01
18	.01	0	.01	0	.01	.01	.03	.01	.01	.25	.27	.01
19	.01	0	.02	.01	.06	0	.03	.02	.01	.26	.58	.03
20	.01	0	.95	0	.01	0	.03	.01	.02	.27	.28	.01
21	.01	0	2.2	.97	.01	.98	.02	.01	.06	.27	.27	.13
22	.01	0	.16	.01	.34	.03	.03	.04	.13	.27	.36	.01
23	.01	0	.15	.01	.01	.01	.24	.35	.27	.33	.31	0
24	0	0	.04	.25	.03	.01	.01	.12	.01	.29	.29	0
25	0	0	.08	.15	.03	.01	.01	.10	.01	.27	.19	0
26	0	.01	1.7	.05	.01	.01	.01	.07	.21	.27	.07	.01
27	0	.06	.17	.10	.01	.01	.01	.07	.01	.27	.12	0
28	0	.04	.01	.03	.01	.01	.01	.06	.13	.27	.14	1.1
29	.99	0	.01	.01	------	.30	.01	.05	.01	.88	.03	.01
30	.01	.01	.04	.01	------	1.9	.02	.04	.01	.27	.34	.01
31	.04	------	.29	.01	------	.15	------	.02	------	.27	.02	------
TOTAL	2.74	.62	8.52	3.85	1.11	4.08	2.91	3.79	5.20	7.17	8.41	4.28
MEAN	.088	.021	.27	.12	.040	.13	.097	.12	.17	.23	.27	.14
MAX	1.3	.21	2.2	.97	.34	1.9	.64	1.5	1.5	.88	.58	1.1
MIN	0	0	0	0	.01	0	.01	.01	.01	.01	.02	0
CFSM	1.10	.26	3.38	1.50	.50	1.63	1.21	1.50	2.13	2.88	3.38	1.75
IN	1.27	.29	3.96	1.79	.52	1.90	1.35	1.76	2.42	3.33	3.91	1.99

CAL YR 1973 TOTAL 48.79 MEAN .13 MAX 5.6 MIN 0 CFSM 1.63 IN 22.69
WTR YR 1974 TOTAL 52.68 MEAN .14 MAX 2.2 MIN 0 CFSM 1.75 IN 24.50

PEAK DISCHARGE (BASE, 20 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	0430	1.72	47	8- 4	1800	2.04	71
2-22	1045	1.21	22	8-19	1810	1.20	22
5-12	1545	1.74	48	8-30	1710	1.26	24
6-16	2345	1.92	61	9- 3	0125	1.22	23
7-29	2205	1.68	44	9-28	1050	1.64	42

01644295 SMILAX BRANCH AT RESTON, VA.

LOCATION.--Lat 38°57'10", long 77°22'04", Fairfax County, on right bank 100 ft (30 m) upstream from Dulles Airport Road, 0.4 mi (0.6 km) upstream from mouth, 1.0 mi (1.6 km) west of Sunset Hills in Reston, and 4.3 mi (6.9 km) east of Dulles International Airport.

DRAINAGE AREA.--0.32 mi² (0.83 km²).

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 356.59 ft (108.689 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 0.40 ft³/s or 0.011 m³/s (16.98 in/yr or 431 mm/yr).

EXTREMES.--Current year: Maximum discharge, 88 ft³/s (2.49 m³/s) June 17 (gage height, 4.50 ft or 1.372 m); no flow Sept. 2.

Period of record: Maximum discharge, 230 ft³/s (6.51 m³/s) June 21, 1972 (gage height, 5.79 ft or 1.765 m), from rating curve extended above 79 ft³/s (2.24 m³/s) on basis of computation of peak flow through culvert; no flow for many days most years.

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WRD Va. 1971: 1968(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.70	.02	.46	.23	.19	.65	.22	.44	.09	.02	.01
2	1.9	.50	.02	.26	.24	.34	.55	.23	2.3	.22	.04	0
3	.66	.31	.02	.66	.23	.21	.53	.49	.36	.31	.02	.88
4	.56	.13	.02	1.5	.20	.25	1.5	.14	.15	.07	.56	.06
5	.70	.70	.91	.41	.18	.24	1.6	.28	.10	.07	.04	.05
6	.46	.26	.08	.28	.20	.33	.66	.23	.21	.04	.02	1.1
7	.50	.07	.04	.25	.27	.25	.50	.16	.12	.04	.10	.81
8	.70	.18	.06	.21	.22	.22	1.6	.17	.08	.03	.02	.02
9	.75	.43	2.8	.95	.22	.18	1.8	1.3	.07	.05	.04	.02
10	.70	.09	.22	1.4	.22	.17	.66	.37	.07	.24	.18	.02
11	.43	.08	.12	1.6	.22	.18	.58	.18	.14	.26	.02	.07
12	.08	.09	.09	.49	.27	.29	.61	3.1	.20	.40	.02	.04
13	.07	.10	.15	.31	.41	.17	1.1	1.2	.29	.31	.03	.02
14	.16	.10	.13	.29	.39	.16	.77	.53	.46	.26	.03	.20
15	.31	.13	.08	.28	.23	.15	.62	.59	.28	.24	.02	.37
16	.34	.20	.08	.27	.23	.24	.33	.24	1.1	.29	.11	.24
17	.62	.03	.09	.23	.25	.20	.27	.23	4.8	.26	.18	.15
18	.70	.03	.10	.33	.21	.22	.30	.38	.18	.24	.03	.03
19	.26	.03	.09	.26	.26	.18	.24	.19	.15	.26	.28	.03
20	.50	.03	.85	.20	.22	.20	.22	.21	.13	.31	.04	.03
21	.53	.03	5.6	2.0	.18	1.5	.22	.23	.22	.31	.02	.15
22	.43	.03	.62	.68	.74	.60	.42	.18	.31	.31	.04	.03
23	.66	.05	.37	.39	.32	.28	.62	.89	.53	.31	.07	.20
24	.46	.03	.24	.58	.23	.24	.24	.26	.26	.04	.09	.05
25	.31	.05	.31	.88	.22	.20	.19	.19	.22	.02	.08	.07
26	.12	.03	3.7	.46	.18	.20	.18	.17	.50	.22	.04	.20
27	.05	.05	1.7	.52	.19	.18	.16	.10	.18	.18	.01	.17
28	.06	.08	.53	.37	.18	.23	.16	.24	.29	.02	.06	.95
29	1.3	.04	.34	.31	------	.47	.17	.29	.29	.37	.03	.20
30	.43	.02	.31	.27	------	4.9	.21	.25	.26	.12	.25	.43
31	.53	------	.53	.28	------	1.5	------	.26	------	.02	.02	------
TOTAL	15.71	4.60	20.22	17.38	7.14	14.67	17.66	13.50	14.69	5.91	2.51	6.60
MEAN	.51	.15	.65	.56	.26	.47	.59	.44	.49	.19	.081	.22
MAX	1.9	.70	5.6	2.0	.74	4.9	1.8	3.1	4.8	.40	.56	1.1
MIN	.05	.02	.02	.20	.18	.15	.16	.10	.07	.02	.01	0
CFSM	1.59	.47	2.02	1.74	.81	1.46	1.84	1.37	1.53	.59	.25	.69
IN	1.82	.53	2.34	2.01	.83	1.70	2.05	1.56	1.70	.68	.29	.76

CAL YR 1973 TOTAL 142.71 MEAN .39 MAX 12 MIN 0 CFSM 1.22 IN 16.54
WTR YR 1974 TOTAL 140.59 MEAN .39 MAX 5.6 MIN 0 CFSM 1.22 IN 16.29

PEAK DISCHARGE (BASE, 20 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGF
5-12	1600	4.01	32	6-17	0015	4.50	88

01645784 SNAKEDEN BRANCH AT RESTON, VA.

LOCATION.--Lat 38°55'48", long 77°20'43", Fairfax County, on right bank at upstream side of culvert on Soapstone Drive, 1.1 mi (1.8 km) upstream from Lake Elsa Dam, and 1.7 mi (2.7 km) south of Sunset Hills in Reston.

DRAINAGE AREA.--0.79 mi² (2.05 km²).

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 320.15 ft (97.582 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 308 ft³/s (8.72 m³/s) June 17 (gage height, 3.61 ft or 1.100 m), from rating curve extended as explained below; minimum daily, 0.08 ft³/s (0.002 m³/s) Sept. 2.

Period of record: Maximum discharge, 523 ft³/s (14.8 m³/s) Sept. 14, 1973 (gage height, 5.04 ft or 1.536 m), from rating curve extended above 98 ft³/s (2.78 m³/s) on basis of computation of peak flow through culvert; minimum daily, 0.08 ft³/s (0.002 m³/s) Sept. 2, 1974.

Flood of June 21, 1972, reached a stage of 6.4 ft (1.95 m), from floodmarks (discharge, 760 ft³/s or 21.5 m³/s, on basis of computation of peak flow through culvert).

REMARKS.--Records good. Recording rain gage located at station. Water-quality records for the current year are included in this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.40	.84	.63	.70	.27	.74	.45	3.2	.57	.53	.12
2	8.2	.49	.84	.30	.74	.73	.59	.52	12	.57	.65	.08
3	.69	.57	.78	1.2	.99	.30	.45	1.6	.98	.57	.52	8.9
4	.70	.57	.70	3.3	.99	.30	3.4	.57	.70	.57	6.9	.59
5	.70	1.3	4.4	.43	.96	.35	4.0	1.1	.64	.57	.60	.25
6	.70	.57	.52	.35	.99	.58	.81	.75	.57	.57	.43	9.1
7	.70	.57	.36	.29	1.3	.59	.70	.57	.53	.57	1.2	8.3
8	.70	.51	.44	.25	.99	.47	4.8	.57	.45	.57	.35	.59
9	.92	1.6	9.5	1.6	1.0	.45	3.2	4.9	.45	.57	1.1	.45
10	1.3	.70	.65	2.1	1.1	.40	1.0	.82	.45	1.8	2.1	.41
11	1.2	.70	.37	2.7	1.1	.30	.81	.59	.40	.64	.80	.61
12	1.2	.70	.35	.55	1.1	.61	.78	17	.35	.44	.41	.35
13	1.2	.62	.60	.37	1.3	.42	1.9	1.6	.35	.39	.20	.29
14	1.2	.57	.44	.35	1.4	.35	.85	1.1	.90	.27	.22	1.3
15	1.1	.45	.35	.35	1.1	.35	.77	.88	.74	.28	.20	.20
16	.84	.57	.28	.35	1.0	.62	.70	.70	12	.27	1.9	.20
17	.84	.57	.32	.28	1.2	.45	.68	.66	19	.70	1.2	.20
18	.84	.57	.35	.28	1.0	.35	.57	.57	.66	1.3	.15	.20
19	.84	.57	.32	.54	1.2	.35	.64	.64	.57	1.3	1.6	.20
20	.84	.57	2.9	.35	1.1	.35	.70	.70	.57	1.2	.45	.24
21	.84	.57	19	6.4	.99	5.0	.70	.70	.57	.52	.27	.56
22	.84	.57	.88	1.0	2.5	.76	.62	.70	1.6	.34	.20	.28
23	.84	.57	.73	.80	.41	.45	1.1	2.6	3.3	.49	.20	.27
24	.84	.57	.48	1.2	.31	.36	.70	.61	.57	.54	.19	.27
25	.95	.57	.59	1.6	.20	.20	.57	.35	.57	.35	.18	.27
26	1.2	.70	10	.95	.20	.20	.45	.35	1.3	.35	.62	.35
27	1.3	.70	1.9	1.1	.23	.13	.45	.35	.66	.35	.45	.35
28	1.3	.81	.58	.89	.27	.12	.45	.35	1.5	.35	1.1	9.6
29	6.3	.84	.41	.82	------	.91	.45	.46	.65	4.7	.35	.69
30	.29	.84	.39	.70	------	18	.45	.65	.56	1.3	2.8	.47
31	.23	------	.99	.70	------	1.4	------	.49	------	.57	.28	------
TOTAL	40.09	19.91	61.26	32.73	26.37	36.12	34.03	43.90	66.79	23.58	28.15	45.69
MEAN	1.29	.66	1.98	1.06	.94	1.17	1.13	1.42	2.23	.76	.91	1.52
MAX	8.2	1.6	19	6.4	2.5	18	4.8	17	19	4.7	6.9	9.6
MIN	.23	.40	.28	.25	.20	.12	.45	.35	.35	.27	.15	.08
CFSM	1.63	.84	2.51	1.34	1.19	1.48	1.43	1.80	2.82	.96	1.15	1.92
IN	1.89	.94	2.88	1.54	1.24	1.70	1.60	2.07	3.15	1.11	1.33	2.15

CAL YR 1973 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1974 TOTAL 458.62 MEAN 1.26 MAX 19 MIN .08 CFSM 1.59 IN 21.60

PEAK DISCHARGE (BASE, 150 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-12	1605	2.80	201	8- 4	1830	2.43	157
6-17	0025	3.61	308				

01646000 DIFFICULT RUN NEAR GREAT FALLS, VA.

LOCATION.--Lat 38°58'33", long 77°14'46", Fairfax County, on right bank 300 ft (91 m) downstream from Rocky Run, 0.7 mi (1.1 km) upstream from mouth, and 1.5 mi (2.4 km) southeast of Great Falls.

DRAINAGE AREA.--57.9 mi^2 (150.0 km^2).

PERIOD OF RECORD.--October 1934 to current year. Monthly discharge only October to December 1934, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 151.30 ft (46.116 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 58.3 ft^3/s or 1.651 m^3/s (13.67 in/yr or 347 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,120 ft^3/s (31.7 m^3/s) Dec. 21 (gage height, 7.59 ft or 2.313 m); minimum, 10 ft^3/s (0.28 m^3/s) Aug. 25, 26 (gage height, 2.75 ft or 0.838 m).

Period of record: Maximum discharge, 32,200 ft^3/s (912 m^3/s) June 22, 1972 (gage height, 21.40 ft or 6.523 m, from floodmarks), from rating curve extended above 1,600 ft^3/s (45.3 m^3/s) on basis of contracted-opening measurement at gage height 13.18 ft (4.017 m) and slope-area measurement of peak flow; minimum, 0.05 ft^3/s (0.001 m^3/s) Sept. 9, 10, 1966 (gage height, 1.65 ft or 0.503 m).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 951: 1936(M), 1937-38, 1939-40(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	27	37	112	57	46	100	39	49	30	16	19
2	190	23	36	75	57	52	76	37	254	28	14	15
3	80	23	36	93	60	51	64	64	111	26	17	106
4	36	23	37	218	54	46	104	46	57	24	16	82
5	31	31	108	103	49	45	128	40	43	26	39	26
6	27	31	67	88	49	44	92	55	37	40	20	31
7	27	26	42	79	61	52	67	40	35	35	22	335
8	26	24	38	70	58	52	102	39	37	33	19	49
9	26	42	342	97	57	44	274	79	36	33	47	35
10	26	29	93	144	54	44	97	69	34	61	60	31
11	26	25	52	176	54	42	75	46	31	92	19	30
12	26	25	43	118	52	49	69	133	36	35	16	26
13	26	24	42	78	63	44	100	242	36	33	16	22
14	26	24	53	64	70	42	81	75	37	31	15	25
15	24	24	42	63	55	40	69	52	35	30	27	21
16	23	24	40	63	52	43	60	49	72	29	14	19
17	23	23	47	60	55	53	57	46	191	28	37	18
18	22	24	51	54	52	43	53	40	50	27	18	18
19	22	23	40	56	52	43	53	40	42	25	15	17
20	22	22	53	54	53	41	51	41	42	26	16	16
21	22	23	788	261	48	143	49	37	43	20	13	16
22	22	23	160	136	70	81	49	37	36	14	12	18
23	22	23	90	88	61	53	67	49	81	14	14	16
24	22	23	71	79	49	47	51	46	49	18	12	14
25	22	24	64	131	49	43	46	39	38	16	11	14
26	21	28	320	90	45	42	46	35	35	16	49	14
27	23	43	398	91	44	41	46	34	48	16	30	14
28	21	50	106	80	46	40	44	35	36	15	15	136
29	68	52	78	75	------	41	44	34	42	14	22	54
30	37	39	69	64	------	426	42	38	34	54	16	28
31	27	------	64	62	------	425	------	35	------	22	64	------
TOTAL	1,050	845	3,507	3,022	1,526	2,298	2,256	1,691	1,704	911	721	1,265
MEAN	33.9	28.2	113	97.5	54.5	74.1	75.2	54.5	56.8	29.4	23.3	42.2
MAX	190	52	788	261	70	426	274	242	254	92	64	335
MIN	21	22	36	54	44	40	42	34	31	14	11	14
CFSM	.59	.49	1.95	1.68	.94	1.28	1.30	.94	.98	.51	.40	.73
IN	.67	.54	2.25	1.94	.98	1.48	1.45	1.09	1.09	.59	.46	.81

CAL YR 1973 TOTAL 31,626 MEAN 86.6 MAX 954 MIN 18 CFSM 1.50 IN 20.32
WTR YR 1974 TOTAL 20,796 MEAN 57.0 MAX 788 MIN 11 CFSM .98 IN 13.36

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1730	7.59	1,120	3-31	0230	7.57	1,110

01646500 POTOMAC RIVER NEAR WASHINGTON, D. C.

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Maryland, on left bank just above Little Falls Dam, 1 mi (1.6 km) upstream from District of Columbia boundary line, 1.2 mi (1.9 km) upstream from Chain Bridge, 1.8 mi (2.9 km) east of Langley, Fairfax County, Virginia, and at mile 117.4.
DRAINAGE AREA.--11,560 mi² (29,940 km²).
PERIOD OF RECORD.--March 1930 to current year.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft (11.567 m) above mean sea level. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder, at site 1 mi (1.6 km) upstream on right bank at same datum.
AVERAGE DISCHARGE.--44 years, 11,100 ft³/s or 314.4 m³/s (13.04 in/yr or 331 mm/yr), adjusted for diversions.
EXTREMES.--Current year: Maximum discharge, 110,000 ft³/s (3,120 m³/s) Dec. 28 (gage height, 10.36 ft or 3.158 m); minimum daily, 1,920 ft³/s (54.4 m³/s) Aug. 15, 16, Sept. 30 (does not include diversion for municipal use); minimum daily (adjusted), 2,390 ft³/s (67.7 m³/s) Sept. 30 (includes diversion of 474 ft³/s or 13.4 m³/s for municipal use).

Period of record: Maximum discharge, 484,000 ft³/s (13,700 m³/s) Mar. 19, 1936 (gage height, 28.1 ft or 8.56 m, site then in use); minimum daily observed at gaging station, 121 ft³/s (3.43 m³/s) Sept. 9, 1966 (does not include diversion of 489 ft³/s or 13.8 m³/s for municipal use); minimum daily (adjusted), 601 ft³/s (17.0 m³/s) Sept. 10, 1966 (includes diversion of 449 ft³/s or 12.7 m³/s for municipal use).

Flood of June 2, 1889, was of approximately the same magnitude as that of Mar. 19, 1936.

REMARKS.--Records good. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D. C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant, for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); and since April 1964, at Violets Lock to Chesapeake and Ohio Canal. Low flow affected slightly by Stony River Reservoir and since December 1950, by Savage River Reservoir. Low flow affected extensively at times by run-of-the-river hydroelectric plants. Water-quality records have been collected at this location and are published in reports of the Geological Survey.
REVISIONS.--WSP 726: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,520	24,500	5,510	33,900	16,200	9,340	39,100	7,700	5,660	9,610	2,970	2,410
2	3,570	16,300	7,260	27,800	14,800	9,160	30,400	7,350	7,700	9,970	3,200	2,180
3	4,660	13,800	7,180	24,000	14,000	9,340	24,700	7,180	20,400	10,100	2,800	3,320
4	5,010	12,500	6,350	22,800	13,100	9,250	21,800	7,010	48,400	9,970	2,410	3,940
5	6,930	11,100	6,040	22,700	12,300	9,970	30,700	6,840	46,800	8,410	2,470	4,330
6	8,230	9,880	5,880	21,800	11,600	11,300	41,400	6,840	28,300	6,930	2,740	4,070
7	6,840	8,690	5,810	20,300	11,000	10,900	37,300	6,930	19,700	6,430	3,320	4,940
8	5,510	8,140	5,810	18,100	10,400	10,500	30,300	6,930	15,200	6,430	2,970	4,660
9	4,800	7,790	7,700	17,000	10,200	10,100	28,400	6,680	12,500	6,430	2,630	4,270
10	4,270	6,930	10,900	16,500	9,880	9,880	27,300	7,010	10,600	5,660	2,580	4,270
11	3,880	6,430	18,000	19,300	9,970	10,400	26,200	6,760	9,520	5,150	2,520	4,940
12	3,690	5,960	18,600	36,200	9,700	10,600	23,300	7,260	8,690	4,870	2,300	5,080
13	3,820	5,730	14,800	48,400	9,430	10,300	20,900	14,000	8,140	4,330	2,020	4,530
14	4,140	5,360	12,300	38,900	9,790	9,970	25,100	21,700	7,440	3,760	1,970	5,960
15	3,820	5,010	10,800	30,300	9,790	9,790	26,700	27,000	6,430	3,440	1,920	7,610
16	3,500	4,600	10,200	25,300	9,790	9,700	23,600	22,600	6,110	3,020	1,920	4,660
17	3,320	4,530	9,610	23,300	11,600	9,430	20,200	17,200	6,930	2,910	2,130	3,880
18	3,630	4,530	9,070	21,700	11,700	9,610	17,500	13,800	8,320	2,740	2,520	3,080
19	3,440	4,330	8,510	19,400	10,700	9,700	15,700	11,900	9,160	2,580	2,800	3,140
20	2,970	4,140	8,410	17,500	10,200	9,250	14,300	10,500	7,870	2,470	3,020	3,080
21	2,800	4,140	17,300	19,100	9,790	9,340	13,100	10,500	6,930	2,300	2,520	2,800
22	2,740	4,140	33,900	30,100	9,430	9,970	12,100	9,880	6,190	2,180	2,410	2,690
23	2,630	4,200	50,200	35,000	9,610	12,600	11,400	9,160	6,510	2,070	2,350	2,630
24	2,580	4,070	38,500	33,000	9,970	13,500	11,400	9,430	6,680	2,020	2,410	2,470
25	2,520	4,010	28,000	28,500	10,200	14,000	11,100	8,880	9,790	2,020	2,580	2,180
26	2,690	4,010	26,700	24,700	10,900	12,700	10,200	8,230	20,000	2,070	2,520	2,070
27	2,630	4,010	53,000	22,400	10,300	11,600	9,700	7,440	17,100	2,070	2,520	1,970
28	2,350	4,070	100,000	22,200	9,790	10,600	9,160	6,840	13,800	2,020	2,410	2,470
29	2,350	4,140	94,000	21,300	------	9,970	8,600	6,350	11,700	2,020	2,410	2,300
30	19,400	4,140	57,100	19,700	------	13,300	8,140	5,960	9,970	2,580	2,300	1,920
31	39,500	------	40,900	17,900	------	31,200	------	5,730	------	2,740	2,410	------
TOTAL	170,740	211,180	728,340	779,100	306,140	347,270	629,800	311,590	402,540	139,300	78,050	107,850
MEAN	5,508	7,039	23,490	25,130	10,930	11,200	20,990	10,050	13,420	4,494	2,518	3,595
MAX	39,500	24,500	100,000	48,400	16,200	31,200	41,400	27,000	48,400	10,100	3,320	7,610
MIN	2,350	4,010	5,510	16,500	9,430	9,160	8,140	5,730	5,660	2,020	1,920	1,920
(*)	480	439	442	445	420	423	446	462	478	566	488	480
MEAN‡	5,988	7,478	23,930	25,580	11,350	11,620	21,440	10,510	13,900	5,060	3,006	4,075
CFSM‡	.52	.65	2.07	2.21	.98	1.01	1.85	.91	1.20	.44	.26	.35
IN‡	.60	.73	2.39	2.55	1.02	1.16	2.06	1.05	1.34	.51	.30	.39

CAL YR 1973 TOTAL 5,308,790 MEAN 14,540 MAX 100,000 MIN 2,170 MEAN‡ 15,010 CFSM‡ 1.30 IN‡ 17.65
WTR YR 1974 TOTAL 4,211,900 MEAN 11,540 MAX 100,000 MIN 1,920 MEAN‡ 12,010 CFSM‡ 1.04 IN‡ 14.12

PEAK DISCHARGE (BASE, 45,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	2200	6.76	45,800	1-13	0630	6.99	49,600
12-23	1230	7.14	52,000	6- 4	2030	7.55	59,000
12-28	2000	10.36	110,000				

* DIVERSION, IN FT³/S, FOR MUNICIPAL SUPPLY OF WASHINGTON, D. C., WASHINGTON SUBURBAN SANITARY DISTRICT, CITY OF ROCKVILLE, CITY OF FAIRFAX (FROM GOOSE CREEK), AND THE CHESAPEAKE AND OHIO CANAL (INSIGNIFICANT DIVERSION TO CANAL DURING THE CURRENT WATER YEAR); RECORDS FURNISHED BY CORPS OF ENGINEERS, WASHINGTON SUBURBAN SANITARY COMMISSION, CITY OF FAIRFAX.

‡ ADJUSTED FOR DIVERSION.

01646500 POTOMAC RIVER NEAR WASHINGTON, D. C.

LOCATION.--Lat 38°56'58", long 77°07'40", Montgomery County, Maryland, on left bank just above Little Falls Dam, 1 mi (1.6 km) upstream from District of Columbia boundary line, 1.2 mi (1.9 km) upstream from Chain Bridge, 1.8 mi (2.9 km) east of Langley, Fairfax County, Virginia, and at mile 117.4.

DRAINAGE AREA.--11,560 mi² (29,940 km²).

PERIOD OF RECORD.--March 1930 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft (11.567 m) above mean sea level. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder, at site 1 mi (1.6 km) upstream on right bank at same datum.

AVERAGE DISCHARGE.--44 years, 11,100 ft³/s or 314.4 m³/s (13.04 in/yr or 331 mm/yr), adjusted for diversions.

EXTREMES.--Current year: Maximum discharge, 110,000 ft³/s (3,120 m³/s) Dec. 28 (gage height, 10.36 ft or 3.158 m); minimum daily, 1,920 ft³/s (54.4 m³/s) Aug. 15, 16, Sept. 30 (does not include diversion for municipal use); minimum daily (adjusted), 2,390 ft³/s (67.7 m³/s) Sept. 30 (includes diversion of 474 ft³/s or 13.4 m³/s for municipal use).

Period of record: Maximum discharge, 484,000 ft³/s (13,700 m³/s) Mar. 19, 1936 (gage height, 28.1 ft or 8.56 m, site then in use); minimum daily observed at gaging station, 121 ft³/s (3.43 m³/s) Sept. 9, 1966 (does not include diversion of 489 ft³/s or 13.8 m³/s for municipal use); minimum daily (adjusted), 601 ft³/s (17.0 m³/s) Sept. 10, 1966 (includes diversion of 449 ft³/s or 12.7 m³/s for municipal use).

Flood of June 2, 1889, was of approximately the same magnitude as that of Mar. 19, 1936.

REMARKS.--Records good. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D. C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant, for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); and since April 1964, at Violets Lock to Chesapeake and Ohio Canal. Low flow affected slightly by Stony River Reservoir and since December 1950, by Savage River Reservoir. Low flow affected extensively at times by run-of-the-river hydroelectric plants. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WSP 726: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,520	24,500	5,510	33,900	16,200	9,340	39,100	7,700	5,660	9,610	2,970	2,410
2	3,570	16,300	7,260	27,800	14,800	9,160	30,400	7,350	7,700	9,970	3,200	2,180
3	4,660	13,800	7,180	24,000	14,000	9,340	24,700	7,180	20,400	10,100	2,800	3,320
4	5,010	12,500	6,350	22,800	13,100	9,250	21,800	7,010	48,400	9,970	2,410	3,940
5	6,930	11,100	6,040	22,700	12,300	9,970	30,700	6,840	46,800	8,410	2,470	4,330
6	8,230	9,880	5,880	21,800	11,600	11,300	41,400	6,840	28,300	6,930	2,740	4,070
7	6,840	8,690	5,810	20,300	11,000	10,900	37,300	6,930	19,700	6,430	3,320	4,940
8	5,510	8,140	5,810	18,100	10,400	10,500	30,300	6,930	15,200	6,430	2,970	4,660
9	4,800	7,790	7,700	17,000	10,200	10,100	28,400	6,680	12,500	6,430	2,630	4,270
10	4,270	6,930	10,900	16,500	9,880	9,880	27,300	7,010	10,600	5,660	2,580	4,270
11	3,880	6,430	18,000	19,300	9,970	10,400	26,200	6,760	9,520	5,150	2,520	4,940
12	3,690	5,960	18,600	36,200	9,700	10,600	23,300	7,260	8,690	4,870	2,300	5,080
13	3,820	5,730	14,800	48,400	9,430	10,300	20,900	14,000	8,140	4,330	2,020	4,530
14	4,140	5,360	12,300	38,900	9,790	9,970	25,100	21,700	7,440	3,760	1,970	5,960
15	3,820	5,010	10,800	30,300	9,790	9,790	26,700	27,000	6,430	3,440	1,920	7,610
16	3,500	4,600	10,200	25,300	9,790	9,700	23,600	22,600	6,110	3,020	1,920	4,660
17	3,320	4,530	9,610	23,300	11,600	9,430	20,200	17,200	6,930	2,910	2,130	3,880
18	3,630	4,530	9,070	21,700	11,700	9,610	17,500	13,800	8,320	2,740	2,520	3,080
19	3,440	4,330	8,510	19,400	10,700	9,700	15,700	11,900	9,160	2,580	2,800	3,140
20	2,970	4,140	8,410	17,500	10,200	9,250	14,300	10,500	7,870	2,470	3,020	3,080
21	2,800	4,140	17,300	19,100	9,790	9,340	13,100	10,500	6,930	2,300	2,520	2,800
22	2,740	4,140	33,900	30,100	9,430	9,970	12,100	9,880	6,190	2,180	2,410	2,690
23	2,630	4,200	50,200	35,000	9,610	12,600	11,400	9,160	6,510	2,070	2,350	2,630
24	2,580	4,070	38,500	33,000	9,970	13,500	11,400	9,430	6,680	2,020	2,410	2,470
25	2,520	4,010	28,000	28,500	10,200	14,000	11,100	8,880	9,790	2,020	2,580	2,180
26	2,690	4,010	26,700	24,700	10,900	12,700	10,200	8,230	20,000	2,070	2,520	2,070
27	2,630	4,010	53,000	22,400	10,300	11,600	9,700	7,440	17,100	2,070	2,520	1,970
28	2,350	4,070	100,000	22,200	9,790	10,600	9,160	6,840	13,800	2,020	2,410	2,470
29	2,350	4,140	94,000	21,300	------	9,970	8,600	6,350	11,700	2,020	2,410	2,300
30	19,400	4,140	57,100	19,700	------	13,300	8,140	5,960	9,970	2,580	2,300	1,920
31	39,500	------	40,900	17,900	------	31,200	------	5,730	------	2,740	2,410	------
TOTAL	170,740	211,180	728,340	779,100	306,140	347,270	629,800	311,590	402,540	139,300	78,050	107,850
MEAN	5,508	7,039	23,490	25,130	10,930	11,200	20,990	10,050	13,420	4,494	2,518	3,595
MAX	39,500	24,500	100,000	48,400	16,200	31,200	41,400	27,000	48,400	10,100	3,320	7,610
MIN	2,350	4,010	5,510	16,500	9,430	9,160	8,140	5,730	5,660	2,020	1,920	1,920
(*)	480	439	442	445	420	423	446	462	478	566	488	480
MEAN♦	5,988	7,478	23,930	25,580	11,350	11,620	21,440	10,510	13,900	5,060	3,006	4,075
CFSM♦	.52	.65	2.07	2.21	.98	1.01	1.85	.91	1.20	.44	.26	.35
IN♦	.60	.73	2.39	2.55	1.02	1.16	2.06	1.05	1.34	.51	.30	.39

CAL YR 1973 TOTAL 5,308,790 MEAN 14,540 MAX 100,000 MIN 2,170 MEAN♦ 15,010 CFSM♦ 1.30 IN♦ 17.65
WTR YR 1974 TOTAL 4,211,900 MEAN 11,540 MAX 100,000 MIN 1,920 MEAN♦ 12,010 CFSM♦ 1.04 IN♦ 14.12

PEAK DISCHARGE (BASE, 45,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-30	2200	6.76	45,800	1-13	0630	6.99	49,600
12-23	1230	7.14	52,000	6- 4	2030	7.55	59,000
12-28	2000	10.36	110,000				

* DIVERSION, IN FT³/S, FOR MUNICIPAL SUPPLY OF WASHINGTON, D. C., WASHINGTON SUBURBAN SANITARY DISTRICT, CITY OF ROCKVILLE, CITY OF FAIRFAX (FROM GOOSE CREEK), AND THE CHESAPEAKE AND OHIO CANAL (INSIGNIFICANT DIVERSION TO CANAL DURING THE CURRENT WATER YEAR); RECORDS FURNISHED BY CORPS OF ENGINEERS, WASHINGTON SUBURBAN SANITARY COMMISSION, CITY OF FAIRFAX.

♦ ADJUSTED FOR DIVERSION.

01652500 FOURMILE RUN AT ALEXANDRIA, VA.

LOCATION (revised).--Lat 38°50'35", long 77°05'09", Arlington County, on left bank at upstream side of bridge on Shirlington Road, at Arlington County-Alexandria City line, 0.1 mi (0.2 km) upstream from Interstate Highway 95, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--13.8 mi^3 (35.7 km^2).

PERIOD OF RECORD.--May 1951 to current year (annual maximums only 1970-73).

GAGE.--Water-stage recorder. Datum of gage is 28.57 ft (8.708 m) above mean sea level. May 4, 1951, to Sept. 30, 1969, water-stage recorder, and Oct. 1, 1969, to Sept. 27, 1973, nonrecording gage, at site 0.4 mi (0.6 km) downstream at datum 6.02 ft (1.835 m) lower.

AVERAGE DISCHARGE.--19 years (1951-69, 1974) 14.9 ft^3/s or 0.422 m^3/s (14.66 in/yr or 372 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,930 ft^3/s (83.0 m^3/s) Aug. 30 (gage height, 8.55 ft or 2.606 m), from rating curve extended above 200 ft^3/s (5.66 m^3/s) on basis of slope-area measurements at gage heights 11.0 ft (3.35 m) and 17.8 ft (5.43 m); minimum daily, 1.7 ft^3/s (0.048 m^3/s) Oct. 5, 11, 16.

Period of record: Maximum discharge, 14,600 ft^3/s (413 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.8 ft (5.43 m), from floodmarks, June 21, 1972; minimum discharge, 0.6 ft^3/s (0.017 m^3/s) Sept. 8, 1954.

REMARKS.--Records fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1622: 1954-55.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	5.6	4.0	34	7.7	7.3	6.1	8.0	11	5.6	4.9	2.8
2	131	3.6	3.6	24	7.7	13	5.6	9.0	208	4.4	5.4	2.7
3	2.2	3.6	4.8	30	9.9	6.9	5.6	19	4.4	4.1	24	166
4	2.0	3.9	6.1	52	7.7	7.3	9.9	9.0	5.2	4.1	58	5.6
5	1.7	93	78	27	7.3	7.3	18	10	6.5	4.1	6.0	3.3
6	2.2	3.6	37	26	9.9	16	6.9	11	6.1	4.4	4.4	59
7	2.0	3.6	19	21	14	14	5.6	7.0	6.1	4.4	16	93
8	2.0	3.9	7.7	8.8	7.3	8.8	101	6.1	6.5	4.4	4.8	3.3
9	2.0	97	121	30	14	8.2	80	22	6.1	3.9	85	3.3
10	2.0	3.9	6.5	25	7.7	8.2	11	6.1	6.1	7.7	4.9	3.3
11	1.7	3.9	4.4	35	7.3	11	11	4.0	6.1	4.4	3.6	10
12	2.0	3.9	5.6	6.5	7.7	13	9.3	277	5.6	3.9	3.6	3.6
13	2.0	3.9	29	4.8	7.7	9.3	20	31	5.6	4.4	3.0	3.6
14	2.0	4.1	9.9	4.4	9.3	11	6.9	11	6.5	4.8	34	3.6
15	2.0	4.1	5.2	4.8	6.9	11	6.5	11	6.1	5.2	23	3.6
16	1.7	4.1	11	4.4	9.3	26	6.1	9.9	8.2	4.8	4.4	3.7
17	2.2	4.4	9.3	4.4	8.2	11	5.6	9.3	4.4	5.2	5.6	3.6
18	2.0	4.4	11	4.1	6.9	11	5.2	7.7	4.4	4.8	3.9	3.6
19	2.0	4.4	14	4.4	7.3	11	5.2	8.8	4.1	4.8	29	3.6
20	2.0	4.8	149	4.1	7.3	12	4.8	7.7	4.1	4.4	4.2	3.6
21	2.0	4.8	183	74	6.9	99	4.4	6.9	4.8	3.9	3.6	3.7
22	2.0	4.8	19	11	21	17	4.4	7.7	9.3	4.1	19	3.8
23	2.0	4.8	16	8.8	6.9	16	18	47	61	4.8	4.3	3.7
24	2.0	4.8	17	18	7.3	17	7.0	7.7	4.1	6.1	3.6	3.6
25	2.0	4.4	19	27	9.9	17	5.0	4.4	4.1	5.6	3.3	3.7
26	2.0	3.9	95	12	8.8	16	4.5	4.4	14	5.6	3.5	3.7
27	2.0	4.1	38	11	9.9	16	4.0	4.4	4.8	5.2	3.4	3.6
28	2.0	112	33	13	9.3	16	4.0	4.4	6.5	5.2	3.3	40
29	97	10	28	9.3	------	47	4.5	5.2	4.5	39	4.2	4.2
30	3.6	5.0	28	8.2	------	266	7.0	7.7	4.8	19	164	4.1
31	4.1	------	52	8.2	------	11	------	4.8	------	6.3	3.1	------
TOTAL	289.5	422.3	1,064.1	555.2	251.1	761.3	393.1	589.2	439.0	198.6	543.0	459.9
MEAN	9.34	14.1	34.3	17.9	8.97	24.6	13.1	19.0	14.6	6.41	17.5	15.3
MAX	131	112	183	74	21	266	101	277	208	39	164	166
MIN	1.7	3.6	3.6	4.1	6.9	6.9	4.0	4.0	4.1	3.9	3.0	2.7
CFSM	.65	.98	2.38	1.24	.62	1.71	.91	1.32	1.01	.45	1.22	1.06
IN	.75	1.09	2.75	1.43	.65	1.97	1.02	1.52	1.13	.51	1.40	1.19

CAL YR 1973 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1974 TOTAL 5,965.3 MEAN 16.3 MAX 277 MIN 1.7 CFSM 1.13 IN 15.41

PEAK DISCHARGE (BASE, 1,800 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
5-12	1630	7.83	2,220	8-30	1815	8.55	2,930

01653000 CAMERON RUN AT ALEXANDRIA, VA.

LOCATION.--Lat 38°48'23", long 77°06'35", Alexandria City, on left bank 25 ft (8 m) downstream from bridge on Southern Railway at Alexandria, 800 ft (244 m) downstream from confluence of Holmes Run and Backlick Run, 0.5 mi (0.8 km) east of the U.S. Army Quartermaster Depot, and 3.4 mi (5.5 km) upstream from mouth.

DRAINAGE AREA.--33.7 mi² (87.3 km²).

PERIOD OF RECORD.--June 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 36.51 ft (11.128 m) above mean sea level. Prior to Sept. 20, 1965, at same site at datum 2.34 ft (0.713 m) higher.

AVERAGE DISCHARGE.--19 years, 35.0 ft³/s or 0.991 m³/s (14.10 in/yr or 358 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,860 ft³/s (109 m³/s) Aug. 30 (gage height, 8.39 ft or 2.557 m), from rating curve extended as explained below; minimum daily, 1.6 ft³/s (0.045 m³/s) Aug. 1.
Period of record: Maximum discharge, 19,900 ft³/s (564 m³/s) June 22, 1972 (gage height, 18.14 ft or 5.529 m), from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of culvert computations of peak flow for main channel and bypass channels; minimum, 1.1 ft³/s (0.031 m³/s) Aug. 15, 1957, Sept. 22-25, 1964.

REMARKS.--Records good. Some regulation by Lake Barcroft, formerly Alexandria Reservoir, on Holmes Run 3.6 mi (5.8 km) upstream (usable capacity, 2,092 acre-ft or 2.58 hm³). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	10	5.6	78	21	15	143	6.0	15	10	1.6	30
2	124	5.6	5.2	54	19	27	122	6.0	224	4.5	4.9	17
3	22	5.2	4.5	61	20	16	45	26	28	3.4	16	312
4	8.9	5.2	5.6	86	18	14	48	6.3	16	3.9	84	102
5	7.5	25	131	53	13	14	75	7.5	12	3.4	12	27
6	6.7	7.5	20	47	13	25	20	8.4	10	3.1	5.2	89
7	6.7	5.2	8.4	35	20	28	15	4.2	9.4	3.1	24	328
8	7.1	5.6	12	33	12	23	126	3.4	9.4	3.6	8.0	51
9	6.7	32	244	61	16	14	150	26	8.9	3.4	54	26
10	6.7	5.6	33	71	15	13	23	5.6	8.4	13	29	19
11	6.0	3.6	15	106	13	13	22	3.4	6.0	7.1	14	33
12	6.3	3.6	11	56	14	24	20	261	6.0	3.1	9.4	19
13	6.3	3.4	23	44	25	14	37	26	6.0	2.9	7.5	14
14	6.3	3.4	20	35	30	12	19	19	5.6	2.6	48	11
15	6.0	3.4	9.4	28	41	12	17	14	6.0	2.9	102	9.4
16	5.2	3.4	12	26	33	29	15	12	26	2.6	23	8.4
17	5.6	2.9	16	24	26	33	15	11	10	2.6	42	9.0
18	5.2	5.2	16	22	21	15	14	9.4	5.6	2.1	16	7.5
19	5.2	6.3	16	21	20	14	15	9.4	5.2	14	9.4	9.0
20	6.0	6.0	256	18	21	14	14	8.9	5.2	4.5	6.7	7.1
21	6.0	6.0	341	150	19	50	14	8.4	5.2	2.1	4.5	8.0
22	6.3	6.0	68	54	45	66	14	8.0	11	2.1	21	8.0
23	6.7	6.0	58	48	22	27	34	54	73	2.9	14	6.0
24	6.0	6.0	58	53	18	23	13	12	10	3.4	6.0	6.0
25	6.0	5.6	59	27	20	21	12	14	6.0	2.1	4.2	6.0
26	6.0	6.0	160	28	18	20	12	8.4	26	2.1	41	6.0
27	6.3	7.5	79	44	17	19	12	11	14	2.1	10	5.6
28	6.0	26	61	40	17	18	12	11	17	1.9	6.7	54
29	34	9.4	59	31	------	42	11	11	8.9	19	16	35
30	8.9	5.6	56	27	------	538	8.9	26	6.0	32	353	17
31	5.6	------	88	23	------	173	------	7.1	------	2.1	98	------
TOTAL	360.8	232.2	1,950.7	1,484	587	1,366	1,097.9	644.4	599.8	167.6	1,091.1	1,277.0
MEAN	11.6	7.74	62.9	47.9	21.0	44.1	36.6	20.8	20.0	5.41	35.2	42.6
MAX	124	32	341	150	45	538	150	261	224	32	353	328
MIN	5.2	2.9	4.5	18	12	12	8.9	3.4	5.2	1.9	1.6	5.6
CFSM	.34	.23	1.87	1.42	.62	1.31	1.09	.62	.59	.16	1.04	1.26
IN	.40	.26	2.15	1.64	.65	1.51	1.21	.71	.66	.19	1.20	1.41

CAL YR 1973 TOTAL 16,195.0 MEAN 44.4 MAX 642 MIN 2.9 CFSM 1.32 IN 17.88
WTR YR 1974 TOTAL 10,858.5 MEAN 29.7 MAX 538 MIN 1.6 CFSM .88 IN 11.99

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-30	1615	6.50	2,360	8- 4	1845	6.23	2,080
5-12	1800	6.83	2,340	8-30	1900	8.39	3,860

01654000 ACCOTINK CREEK NEAR ANNANDALE, VA.

LOCATION.--Lat 38°48'46", long 77°13'43", Fairfax County, on left bank 800 ft (244 m) upstream from bridge on State Highway 620, 0.2 mi (0.3 km) upstream from Long Branch, and 2.3 mi (3.7 km) southwest of Annandale.

DRAINAGE AREA.--23.5 mi² (60.9 km²).

PERIOD OF RECORD.--March 1947 to current year (fragmentary prior to October 1947).

GAGE.--Water-stage recorder. Datum of gage is 190.91 ft (58.189 m) above mean sea level (levels by Stone and Webster Engineering Corp.). Prior to May 12, 1949, nonrecording gage at site 800 ft (244 m) downstream at same datum. May 12, 1949, to June 4, 1970, water-stage recorder at site 800 ft (244 m) downstream at same datum.

AVERAGE DISCHARGE.--27 years, 27.9 ft³/s or 0.790 m³/s (16.12 in/yr or 490 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,890 ft³/s (53.5 m³/s) Aug. 30 (gage height, 8.79 ft or 2.679 m), from rating curve extended as explained below; minimum, 2.4 ft³/s (0.068 m³/s) July 29.

Period of record: Maximum discharge, 12,000 ft³/s (340 m³/s) June 22, 1972 (gage height, 15.96 ft or 4.865 m, from high-water mark in gage house), from rating curve extended above 1,200 ft³/s (34.0 m³/s) on basis of contracted-opening and flow-over-road measurement of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Sept. 25, 26, 1954.

REMARKS.--Records good. Slight diurnal fluctuation during low flow caused by sewage disposal plant above station near Fairfax. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1502: 1952. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	10	5.2	58	15	12	31	11	108	6.6	3.3	9.9
2	120	5.8	5.0	22	15	23	26	11	39	6.1	3.6	7.2
3	17	5.0	5.2	29	16	14	22	42	15	5.8	7.6	239
4	8.3	5.5	6.9	79	15	13	35	13	11	5.5	4.0	75
5	6.9	25	93	24	13	13	46	13	9.4	7.2	3.6	14
6	6.1	9.9	19	19	14	16	25	28	8.4	13	3.8	59
7	5.8	5.2	9.9	16	25	24	19	12	8.6	5.8	14	281
8	5.8	5.0	8.7	15	16	21	84	11	8.2	5.2	5.5	19
9	6.4	32	194	51	19	14	136	41	8.0	5.0	283	15
10	6.9	7.6	21	82	20	13	30	18	7.2	18	67	12
11	6.9	5.5	15	75	16	12	23	12	7.0	18	9.1	21
12	6.9	5.5	9.5	30	15	19	21	349	6.9	5.2	6.1	12
13	6.6	5.5	14	19	19	13	49	67	7.4	4.0	5.2	8.0
14	6.6	5.8	21	16	25	12	25	21	7.4	4.0	25	7.2
15	6.4	5.8	9.9	16	15	12	21	16	7.2	3.8	68	6.6
16	6.4	5.2	9.9	16	15	24	18	14	44	3.8	9.1	6.1
17	6.1	5.5	13	15	19	21	18	13	12	3.6	42	6.1
18	6.1	5.5	11	14	14	13	16	12	7.6	3.6	13	5.8
19	6.1	5.2	11	14	14	13	15	12	6.6	11	6.6	5.8
20	6.6	5.8	109	13	14	13	15	12	6.9	10	6.6	5.5
21	6.6	5.2	578	172	12	100	15	11	6.9	4.0	5.0	6.6
22	6.6	5.5	38	34	33	25	14	11	7.6	3.5	6.4	7.6
23	7.2	5.5	25	22	16	16	40	23	70	3.3	9.5	5.2
24	7.6	5.8	22	29	13	15	15	13	15	5.0	5.2	4.7
25	8.0	5.8	19	58	14	13	14	12	9.1	3.8	4.2	4.7
26	8.0	5.5	164	29	13	13	13	11	13	3.5	56	4.7
27	8.7	6.4	64	29	12	13	13	11	20	3.5	8.3	4.7
28	9.5	9.5	25	22	12	12	12	11	11	3.3	5.5	134
29	43	11	19	22	------	23	12	11	13	6.6	15	15
30	9.5	5.5	19	17	------	583	12	13	7.6	48	376	7.2
31	5.8	------	33	16	------	71	------	11	------	5.0	100	------
TOTAL	374.8	232.0	1,597.2	1,073	459	1,199	835	866	509.0	234.7	1,177.2	1,009.6
MEAN	12.1	7.73	51.5	34.6	16.4	38.7	27.8	27.9	17.0	7.57	38.0	33.7
MAX	120	32	578	172	33	583	136	349	108	48	376	281
MIN	5.8	5.0	5.0	13	12	12	12	11	6.6	3.3	3.3	4.7
CFSM	.51	.33	2.19	1.47	.70	1.65	1.18	1.19	.72	.32	1.62	1.43
IN	.59	.37	2.53	1.70	.73	1.90	1.32	1.37	.81	.37	1.86	1.60

CAL YR 1973 TOTAL 12,715.6 MEAN 34.8 MAX 578 MIN 5.0 CFSM 1.48 IN 20.13
WTR YR 1974 TOTAL 9,566.5 MEAN 26.2 MAX 583 MIN 3.3 CFSM 1.11 IN 15.14

PEAK DISCHARGE (BASE, 1,400 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
3-30	2200	8.17	1,570	8-30	1930	8.79	1,890
8- 9	2330	8.65	1,820				

01655500 CEDAR RUN NEAR WARRENTON, VA.

LOCATION.--Lat 38°44'25", long 77°47'16", Fauquier County, on right bank at downstream side of bridge on State Highway 672, 1.9 mi (3.1 km) north of Warrenton, and 14.5 mi (23.3 km) upstream from Licking Run.

DRAINAGE AREA.--12.3 mi² (31.9 km²).

PERIOD OF RECORD.--July 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 419.40 ft (127.833 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 12.3 ft³/s or 0.348 m³/s (13.58 in/yr or 345 mm/yr).

EXTREMES.--Current year: Maximum discharge, 304 ft³/s (8.61 m³/s) Dec. 21 (gage height, 5.85 ft or 1.783 m); minimum, 1.2 ft³/s (0.034 m³/s) Nov. 29, 30.

Period of record: Maximum discharge, 7,840 ft³/s (222 m³/s) June 21, 1972 (gage height, 12.87 ft or 3.923 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of areal study of flood of 1942; no flow part of each day Aug. 11-14, 1967, probably caused by dam 400 ft (120 m) above gage.

Flood in October 1942 reached a stage of about 13 ft (4.0 m), from information by local residents.

REMARKS.--Records good. Some regulation by Warrenton municipal water-supply reservoir 400 ft (120 m) above station.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1382: 1951-53. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	5.0	2.6	28	17	7.5	36	6.7	8.2	4.1	2.2	4.3
2	29	2.9	2.4	21	16	9.2	29	5.8	32	3.4	2.3	3.6
3	17	3.8	2.6	20	16	8.9	24	9.9	19	3.0	2.3	50
4	8.8	2.7	2.6	31	14	8.2	28	7.5	12	2.5	2.3	21
5	6.2	5.0	10	24	12	7.5	41	6.9	8.9	2.2	2.3	9.9
6	4.7	4.2	9.4	22	12	7.9	40	8.9	6.9	2.3	2.3	21
7	4.2	3.3	6.7	20	13	8.6	31	6.9	6.4	2.3	2.3	38
8	4.5	3.6	4.7	18	12	7.9	35	6.4	6.4	2.2	3.0	25
9	4.5	5.9	40	20	12	7.2	48	16	5.6	1.8	7.5	16
10	4.2	3.8	20	27	11	7.2	36	12	4.8	2.0	11	13
11	3.8	2.6	13	37	11	6.4	29	8.9	3.9	2.1	3.9	13
12	3.6	3.6	9.8	35	10	7.5	26	36	3.4	1.6	2.8	9.9
13	3.5	3.5	9.1	27	11	7.5	26	43	3.0	1.6	2.5	6.9
14	3.5	3.5	8.8	23	12	5.6	23	25	3.0	1.7	2.2	5.8
15	2.9	3.5	7.3	21	9.9	5.8	20	19	3.2	1.6	2.1	4.5
16	3.5	4.0	7.6	20	9.9	7.2	16	20	6.4	1.7	2.1	4.3
17	2.9	2.1	10	18	10	7.2	16	13	8.2	1.7	13	4.1
18	2.2	2.4	4.7	16	9.2	4.5	14	11	4.5	1.8	9.2	3.7
19	2.4	3.1	7.6	15	9.6	5.6	13	10	3.6	1.8	4.5	3.6
20	2.7	2.6	15	13	9.9	5.6	12	8.9	3.7	2.0	3.7	3.6
21	2.6	2.9	151	56	8.2	11	11	7.5	3.6	2.0	2.6	3.7
22	2.7	2.9	56	46	11	11	11	6.7	3.6	2.0	37	2.8
23	2.9	2.7	37	35	9.9	9.6	12	8.6	9.9	2.1	14	3.2
24	3.1	2.7	28	28	8.6	9.6	10	7.5	6.7	2.1	6.1	2.2
25	2.9	3.3	23	33	8.9	7.9	8.6	6.1	4.3	2.1	4.1	2.2
26	3.3	2.2	78	27	6.4	7.2	8.6	4.8	4.5	2.2	3.4	2.3
27	2.9	3.1	92	31	6.9	7.2	8.2	4.5	9.2	2.2	3.0	2.3
28	2.9	4.0	52	27	7.2	7.2	7.9	3.9	9.9	2.2	3.0	4.1
29	11	3.3	38	24	------	7.9	7.9	4.3	7.2	2.2	3.7	5.0
30	6.7	2.1	29	22	------	43	7.2	5.0	5.3	2.3	4.1	2.3
31	5.0	------	25	20	------	52	------	5.0	------	2.3	7.5	------
TOTAL	163.6	100.3	802.9	805	304.6	316.6	635.4	345.7	217.3	67.1	172.0	291.3
MEAN	5.28	3.34	25.9	26.0	10.9	10.2	21.2	11.2	7.24	2.16	5.55	9.71
MAX	29	5.9	151	56	17	52	48	43	32	4.1	37	50
MIN	2.2	2.1	2.4	13	6.4	4.5	7.2	3.9	3.0	1.6	2.1	2.2
CFSM	.43	.27	2.11	2.11	.89	.83	1.72	.91	.59	.18	.45	.79
IN	.49	.30	2.43	2.43	.92	.96	1.92	1.05	.66	.20	.52	.88

CAL YR 1973 TOTAL 5,876.9 MEAN 16.1 MAX 151 MIN 1.2 CFSM 1.31 IN 17.77
WTR YR 1974 TOTAL 4,221.8 MEAN 11.6 MAX 151 MIN 1.6 CFSM .94 IN 12.77

PEAK DISCHARGE (BASE, 250 FT³/S).--DEC. 21 (0800) 304 FT³/S (5.85 FT).

01656000 CEDAR RUN NEAR CATLETT, VA.

LOCATION.--Lat 38°38'12", long 77°37'31", Fauquier County, on right bank 100 ft (30 m) downstream from bridge on State Highway 806, 0.9 mi (1.4 km) downstream from Licking Run, and 1.4 mi (2.3 km) southeast of Catlett.

DRAINAGE AREA.--93.4 mi² (241.9 km²).

PERIOD OF RECORD.--July 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 199.15 ft (60.701 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 84.1 ft³/s or 2.382 m³/s (12.23 in/yr or 311 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,700 ft³/s (76.5 m³/s) Dec. 21 (gage height, 10.59 ft or 3.228 m); minimum, 2.0 ft³/s (0.057 m³/s) July 22, 23, 24.

Period of record: Maximum discharge, 38,600 ft³/s (1,090 m³/s) June 22, 1972 (gage height, 27.66 ft or 8.431 m, from floodmarks), from rating curve extended above 5,000 ft³/s (142 m³/s) on basis of contracted-opening measurement of peak flow; no flow on many days in 1954, 1957, 1959, 1963, 1964, and 1966.

Flood of Oct. 15, 1942, reached a stage of about 22 ft (6.7 m), from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	14	12	283	85	40	176	17	27	40	3.6	11
2	308	13	11	144	76	40	134	16	418	25	2.9	7.6
3	241	11	10	136	76	51	105	22	241	18	3.0	186
4	87	9.7	11	304	73	43	121	25	94	14	4.0	123
5	53	10	38	169	63	39	191	18	55	12	5.5	38
6	34	19	91	130	58	36	169	25	38	11	6.6	26
7	23	15	36	114	73	46	114	24	30	11	4.4	479
8	20	11	25	96	72	45	152	18	29	10	3.6	138
9	21	16	384	156	67	38	451	92	28	9.4	37	75
10	21	28	171	407	66	36	180	98	21	6.8	24	44
11	18	17	93	451	63	32	125	41	15	6.8	25	75
12	16	13	62	257	60	37	105	311	13	7.1	8.8	50
13	14	14	55	142	67	41	102	497	12	5.2	5.7	27
14	13	14	78	112	67	34	107	129	10	4.4	4.2	18
15	13	13	52	103	50	28	100	80	9.4	4.0	3.4	14
16	10	12	42	109	51	28	67	69	54	4.0	2.9	13
17	9.7	13	41	98	53	38	57	50	362	3.4	9.8	11
18	9.1	11	42	80	52	33	50	38	57	3.0	61	10
19	9.1	10	48	73	48	28	42	35	32	2.9	22	9.4
20	8.5	14	100	70	54	32	38	42	22	3.0	27	8.8
21	8.8	13	1,930	748	44	160	34	29	20	2.4	11	8.2
22	9.1	12	569	382	62	141	30	25	28	2.2	98	7.9
23	8.8	12	228	195	76	73	38	38	309	2.2	93	7.1
24	8.5	12	177	154	51	60	35	60	161	2.2	25	6.8
25	9.1	12	154	286	48	49	28	44	67	2.3	14	5.7
26	8.5	13	683	199	42	43	25	26	48	2.9	9.7	5.7
27	8.5	14	1,220	228	38	41	22	20	202	3.4	8.2	6.2
28	8.5	12	293	158	39	39	21	18	93	3.4	7.1	9.1
29	37	15	184	138	-----	38	20	16	80	3.0	7.9	16
30	42	15	150	112	------	475	18	19	84	3.8	9.4	10
31	17	------	140	98	------	450	------	19	------	6.2	8.8	------
TOTAL	1,103.3	407.7	7,130	6,132	1,684	2,314	2,857	1,961	2,670.4	235.0	556.5	1,446.5
MEAN	35.6	13.6	230	198	60.1	74.6	95.2	63.3	89.0	7.58	18.0	48.2
MAX	308	28	1,930	748	85	475	451	497	418	40	98	479
MIN	8.5	9.7	10	70	38	28	18	16	9.4	2.2	2.9	5.7
CFSM	.38	.15	2.46	2.12	.64	.80	1.02	.68	.95	.08	.19	.52
IN	.44	.16	2.84	2.44	.67	.92	1.14	.78	1.06	.09	.22	.58

CAL YR 1973 TOTAL 41,548.7 MEAN 114 MAX 1,930 MIN 3.8 CFSM 1.22 IN 16.55
WTR YR 1974 TOTAL 28,497.4 MEAN 78.1 MAX 1,930 MIN 2.2 CFSM .84 IN 11.35

PEAK DISCHARGE (BASE, 1,800 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1930	10.59	2,700	12-27	0200	8.93	1,850

01656100 CEDAR RUN NEAR ADEN, VA.

LOCATION.--Lat 38°36'58", long 77°33'16", Prince William County, on left bank at upstream side of bridge on State Highway 611, 0.5 mi (0.8 km) downstream from Darrels Run, 0.8 mi (1.3 km) downstream from Town Run, and 3.0 mi (4.8 km) southwest of Aden.

DRAINAGE AREA.--155 mi^2 (401 km^2).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 166.27 ft (50.679 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 6,530 ft^3/s (185 m^3/s) Dec. 21 (gage height, 12.18 ft or 3.712 m); minimum, 3.5 ft^3/s (0.099 m^3/s) July 18.
Period of record: Maximum discharge, 7,320 ft^3/s (207 m^3/s) Apr. 27, 1973 (gage height, 12.60 ft or 3.840 m); minimum, 3.2 ft^3/s (0.091 m^3/s) Sept. 10, 1973.
Flood in June 1972 reached a stage of 21.37 ft (6.514 m), from floodmarks (discharge not determined).

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	16	20	590	128	56	332	31	31	44	5.6	18
2	210	15	16	259	113	58	205	29	798	28	6.0	25
3	340	15	16	240	114	73	153	33	604	20	7.0	152
4	97	11	16	590	114	64	153	46	173	15	6.0	151
5	55	14	36	310	98	56	278	34	97	12	5.4	54
6	39	18	128	216	88	51	283	38	61	11	6.4	34
7	28	20	52	179	116	67	157	42	46	10	6.8	740
8	24	16	37	147	116	67	231	33	40	9.2	7.0	190
9	24	19	732	263	100	56	994	91	39	8.8	7.3	110
10	25	28	298	797	100	50	340	159	32	8.2	14	66
11	23	24	133	900	100	45	200	72	24	7.1	20	90
12	20	18	86	470	97	55	159	436	19	6.0	12	69
13	18	15	75	235	114	64	145	1,440	16	5.4	10	34
14	16	16	114	173	113	51	155	218	12	4.9	9.0	24
15	15	17	81	155	97	42	139	126	10	4.5	7.7	18
16	14	15	64	161	83	41	102	95	30	4.3	6.8	15
17	12	14	66	151	83	55	85	72	390	4.2	7.3	12
18	14	16	72	122	83	51	75	55	80	4.2	36	11
19	12	13	70	111	67	40	67	46	32	4.3	17	11
20	11	14	106	104	83	48	61	51	22	4.3	21	11
21	11	18	4,560	1,410	67	334	54	39	20	4.3	13	10
22	11	15	1,600	951	97	346	50	32	22	4.5	84	9.2
23	12	16	500	328	137	145	52	36	400	4.5	116	8.2
24	12	16	300	242	83	113	62	83	213	4.9	33	7.7
25	11	18	230	530	57	86	48	66	69	5.2	18	7.5
26	12	20	1,000	352	67	72	41	40	70	5.4	14	7.0
27	11	24	2,840	390	52	66	39	28	617	5.5	14	9.8
28	12	19	509	259	52	60	36	25	149	5.5	14	16
29	32	18	285	220	------	58	35	24	107	5.5	14	31
30	55	24	233	171	------	921	35	26	95	6.5	14	18
31	23	------	202	147	------	1,340	------	29	------	6.0	14	------
TOTAL	1,223	522	14,477	11,173	2,629	4,631	4,716	3,575	4,318	273.2	567.3	1,959.4
MEAN	39.5	17.4	467	360	93.9	149	157	115	144	8.81	18.3	65.3
MAX	340	28	4,560	1,410	137	1,340	994	1,440	798	44	116	740
MIN	11	11	16	104	52	40	35	24	10	4.2	5.6	7.0
CFSM	.25	.11	3.01	2.32	.61	.96	1.01	.74	.93	.06	.12	.42
IN	.29	.13	3.47	2.68	.63	1.11	1.13	.86	1.04	.07	.14	.47

CAL YR 1973 TOTAL 74,405.2 MEAN 204 MAX 4,560 MIN 3.6 CFSM 1.32 IN 17.86
WTR YR 1974 TOTAL 50,063.9 MEAN 137 MAX 4,560 MIN 4.2 CFSM .88 IN 12.02

PEAK DISCHARGE (BASE, 3,800 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1900	12.18	6,530	12-27	0530	10.95	4,610

01656500 BROAD RUN AT BUCKLAND, VA.

LOCATION.--Lat 38°46'50", long 77°40'22", Prince William County, on right bank at downstream side of bridge on U.S. Highway 29 at Buckland and 1.1 mi (1.8 km) upstream from South Run.

DRAINAGE AREA.--50.5 mi² (130.8 km²).

PERIOD OF RECORD.--July 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 284.58 ft (86.740 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 49.1 ft³/s or 1.391 m³/s (13.20 in/yr or 335 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,510 ft³/s (42.8 m³/s) Dec. 21 (gage height, 6.06 ft or 1.847 m); minimum, 4.8 ft³/s (0.14 m³/s) July 21, 22, 23 (gage height, 1.85 ft or 0.564 m).

Period of record: Maximum discharge, 16,800 ft³/s (476 m³/s) June 21, 1972 (gage height, 13.92 ft or 4.243 m), from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of slope-area measurements at gage heights 13.08 ft (3.987 m) and 13.92 ft (4.243 m); minimum, 0.20 ft³/s (0.006 m³/s) Oct. 10, 1954.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	16	96	64	42	102	25	30	16	6.3	30
2	148	24	16	76	61	48	92	24	172	14	6.7	23
3	96	20	16	74	61	50	68	36	102	12	12	123
4	55	18	16	129	59	42	120	31	56	11	8.9	76
5	41	23	33	93	52	37	158	27	41	10	17	32
6	33	29	37	79	50	37	129	34	34	12	11	36
7	30	23	24	72	54	42	90	30	30	12	8.9	217
8	29	23	20	65	54	39	107	26	30	11	8.5	71
9	29	32	139	69	51	35	179	50	28	9.3	8.5	48
10	28	28	82	99	48	35	106	48	24	8.5	19	38
11	26	23	52	138	50	30	85	34	20	8.2	12	37
12	25	22	39	120	50	34	76	182	17	7.8	9.3	30
13	24	21	35	86	56	34	72	190	16	7.0	8.2	25
14	24	22	35	76	65	30	59	72	16	6.3	7.8	21
15	22	22	30	72	56	29	63	55	16	6.3	7.4	18
16	23	23	29	72	50	30	52	57	25	6.3	7.0	16
17	22	22	28	65	51	32	48	42	45	6.0	54	15
18	22	21	30	59	47	29	46	35	23	5.7	28	15
19	21	21	30	56	47	29	43	34	18	5.7	16	14
20	21	20	49	52	48	29	40	33	17	5.7	14	13
21	21	19	936	330	42	46	37	29	19	5.1	8.9	12
22	21	19	263	176	50	54	35	26	26	4.8	101	12
23	20	19	124	111	51	42	40	36	97	4.8	52	12
24	20	20	98	93	43	40	36	35	48	6.3	27	11
25	21	20	85	118	45	35	34	29	28	6.3	19	11
26	20	18	451	96	40	34	32	25	22	7.0	19	11
27	20	19	661	106	39	32	31	24	25	7.4	16	10
28	20	21	186	91	41	31	30	23	23	7.0	14	14
29	46	25	124	85	------	33	30	21	24	6.7	30	18
30	37	20	96	76	------	247	28	24	20	14	30	14
31	26	------	86	70	------	220	------	24	------	8.5	67	------
TOTAL	1,014	662	3,866	3,000	1,425	1,527	2,068	1,361	1,093	258.7	654.4	1,023
MEAN	32.7	22.1	125	96.8	50.9	49.3	68.9	43.9	36.4	8.35	21.1	34.1
MAX	148	32	936	330	65	247	179	190	172	16	101	217
MIN	20	18	16	52	39	29	28	21	16	4.8	6.3	10
CFSM	.65	.44	2.48	1.92	1.01	.98	1.36	.87	.72	.17	.42	.68
IN	.75	.49	2.85	2.21	1.05	1.12	1.52	1.00	.81	.19	.48	.75

CAL YR 1973 TOTAL 26,666.0 MEAN 73.1 MAX 936 MIN 11 CFSM 1.45 IN 19.64
WTR YR 1974 TOTAL 17,952.1 MEAN 49.2 MAX 936 MIN 4.8 CFSM .97 IN 13.22

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0900	6.06	1,510	12-26	2100	5.54	1,230

01656700 OCCOQUAN RIVER NEAR MANASSAS, VA.

LOCATION.--Lat 38°42'19", long 77°26'46", Prince William County, on right bank 200 ft (61 m) downstream from bridge on State Highway 234 at Lake Jackson, 3.3 mi (5.3 km) southeast of Manassas, and 3.7 mi (6.0 km) upstream from Bull Run.

DRAINAGE AREA.--343 mi^2 (888 km^2).

PERIOD OF RECORD.--April 1968 to current year. Prior to October 1970, published as Occoquan Creek near Manassas.

GAGE.--Water-stage recorder. Datum of gage is 119.53 ft (36.433 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 445 ft^3/s or 12.60 m^3/s (17.62 in/yr or 448 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,840 ft^3/s (250 m^3/s) Dec. 21 (gage height, 13.24 ft or 4.036 m); minimum, 12 ft^3/s (0.34 m^3/s) July 22, 23, 29.

Period of record: Maximum discharge, 56,400 ft^3/s (1,600 m^3/s) June 22, 1972 (gage height, 50.31 ft or 15.334 m, from floodmarks); minimum, 0.60 ft^3/s (0.017 m^3/s) Sept. 18, 1972 (gage height, 0.66 ft or 0.201 m), caused by repair work at dam 650 ft (198 m) above gage.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	65	50	1,200	352	138	1,080	75	72	152	15	95
2	171	40	42	708	304	150	621	72	800	101	15	125
3	929	30	32	523	301	185	458	73	1,690	95	21	200
4	355	20	33	1,250	293	178	411	96	503	80	23	350
5	199	35	145	905	260	157	681	90	290	60	23	250
6	152	50	350	569	219	144	935	84	187	45	19	190
7	77	60	80	458	268	167	527	98	134	37	20	1,100
8	56	48	60	382	301	180	467	86	115	31	19	700
9	55	49	2,250	467	263	155	2,470	140	108	26	22	400
10	60	67	1,000	1,450	242	138	1,130	435	96	25	30	230
11	55	74	380	2,280	255	130	585	245	80	23	41	375
12	50	53	250	1,470	245	132	448	609	71	22	42	500
13	43	43	197	677	274	159	402	3,380	57	20	30	516
14	39	37	238	464	290	144	423	760	47	19	24	324
15	37	42	217	408	277	113	388	385	40	17	22	111
16	30	38	168	402	229	104	312	293	66	16	20	66
17	28	34	180	388	227	134	240	232	641	16	35	57
18	23	38	173	324	227	144	209	167	315	15	70	55
19	20	26	159	287	199	104	187	132	146	15	45	50
20	17	27	177	268	216	110	167	120	87	15	56	48
21	16	45	5,750	2,110	199	402	148	110	72	14	45	46
22	16	30	6,380	3,110	204	925	136	87	76	13	110	44
23	17	37	1,240	1,000	363	405	155	100	585	13	200	42
24	20	39	755	657	242	307	180	176	641	14	120	41
25	32	42	569	1,200	201	245	134	155	307	14	65	40
26	19	49	1,720	950	178	185	104	119	187	14	50	43
27	15	58	6,120	935	136	169	96	80	965	15	47	44
28	14	48	1,960	712	130	155	90	68	363	14	47	62
29	35	37	845	569	------	146	86	64	266	14	55	152
30	150	60	609	458	------	1,200	80	62	214	25	62	76
31	105	------	493	394	------	3,810	------	64	------	19	75	------
TOTAL	2,858	1,321	32,622	26,975	6,895	10,815	13,350	8,657	9,221	999	1,468	6,432
MEAN	92.2	44.0	1,052	870	246	349	445	279	307	32.2	47.4	214
MAX	929	74	6,380	3,110	363	3,810	2,470	3,380	1,690	152	200	1,100
MIN	14	20	32	268	130	104	80	62	40	13	15	40
CFSM	.27	.13	3.07	2.54	.72	1.02	1.30	.81	.90	.09	.14	.62
IN	.31	.14	3.54	2.93	.75	1.17	1.45	.94	1.00	.11	.16	.70

CAL YR 1973 TOTAL 180,228.0 MEAN 494 MAX 7,690 MIN 8.4 CFSM 1.44 IN 19.55
WTR YR 1974 TOTAL 121,613.0 MEAN 333 MAX 6,380 MIN 13 CFSM .97 IN 13.19

PEAK DISCHARGE (BASE, 5,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1830	13.24	8,840	12-27	1230	10.90	6,500

NOTE.--NO GAGE-HEIGHT RECORD NOV. 13 TO DEC. 12.

01656725 BULL RUN NEAR CATHARPIN, VA.

LOCATION.--Lat 38°53'21", long 77°34'14", Prince William County, on right bank 20 ft (6 m) downstream from bridge on State Highway 705, 0.7 mi (1.1 km) downstream from Chestnut Lick, 2.5 mi (4.0 km) north of Catharpin, and 6.7 mi (10.8 km) northeast of Gainesville.

DRAINAGE AREA.--25.8 mi^2 (66.8 km^2).

PERIOD OF RECORD.--May 1969 to current year. Prior to October 1970, published as "on State Highway 705".

GAGE.--Water-stage recorder. Datum of gage is 237.78 ft (72.475 m) above mean sea level.

AVERAGE DISCHARGE.--5 years, 40.8 ft^3/s or 1.155 m^3/s (21.48 in/yr or 546 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,400 ft^3/s (68.0 m^3/s) Dec. 21 (gage height, 6.35 ft or 1.935 m, from high-water mark in well), from rating curve extended above 400 ft^3/s (11.3 m^3/s); minimum, 0.20 ft^3/s (0.006 m^3/s) July 15.

Period of record: Maximum discharge, 39,400 ft^3/s (1,120 m^3/s) June 22, 1972 (gage height, 18.92 ft or 5.767 m, from floodmarks), from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of slope-area measurement of peak flow; no flow Sept. 8 to Oct. 10, 1970.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.9	5.4	71	26	12	61	6.3	9.7	2.4	1.5	3.8
2	80	4.4	4.7	37	25	16	42	6.3	144	1.8	1.4	2.2
3	85	3.2	4.4	45	25	16	31	11	45	1.5	1.8	22
4	30	2.9	4.4	177	22	14	164	8.0	18	1.3	2.4	18
5	16	4.7	37	69	17	12	156	6.8	11	1.1	3.4	3.2
6	11	6.0	25	50	18	11	75	9.7	8.9	1.1	2.2	3.2
7	8.0	3.2	12	38	21	14	44	7.1	7.6	1.3	1.8	170
8	6.2	2.4	12	31	20	12	116	6.6	7.6	1.1	1.8	13
9	5.4	7.6	290	58	21	11	209	30	7.3	.80	1.8	6.3
10	5.0	5.0	55	144	20	11	69	21	6.3	.70	3.4	4.4
11	4.4	3.2	27	215	17	9.7	44	9.7	4.8	1.1	2.4	3.8
12	4.1	2.9	18	117	20	12	36	220	4.6	.70	1.6	3.0
13	3.5	2.6	16	56	31	11	37	103	4.2	.38	1.4	2.1
14	3.8	2.6	17	42	43	9.3	35	29	4.4	.32	1.4	1.6
15	3.5	4.7	12	38	25	8.9	28	18	4.4	.32	1.0	1.4
16	2.6	4.4	12	39	20	9.3	21	14	8.4	.44	1.0	1.1
17	2.6	3.5	12	32	18	11	20	11	18	.44	19	1.1
18	2.9	2.4	14	26	19	9.3	18	8.4	5.0	.44	4.8	1.0
19	3.8	2.4	14	25	18	8.9	16	8.4	3.8	.44	2.1	.90
20	4.1	2.6	90	24	18	8.9	14	8.4	3.6	.44	1.5	.90
21	4.4	2.6	800	500	14	35	14	6.8	4.6	.44	1.1	.90
22	4.4	2.6	240	115	21	25	12	6.6	3.8	.44	14	1.1
23	4.4	2.9	67	71	20	16	16	9.3	7.6	.44	6.6	1.0
24	4.1	2.9	51	66	14	14	12	8.4	6.0	.80	2.8	.80
25	4.4	2.9	44	124	11	11	11	6.6	4.0	1.2	2.0	.80
26	4.4	3.8	526	69	11	10	9.7	5.8	3.8	1.4	1.5	.90
27	4.4	2.4	330	81	12	9.7	8.9	5.8	4.8	1.6	1.4	1.0
28	4.4	4.4	106	86	12	9.3	8.4	5.5	3.6	1.6	1.5	1.6
29	21	12	71	44	------	12	8.0	5.3	4.2	1.5	5.5	2.4
30	4.7	6.0	53	36	------	458	7.1	6.0	4.6	2.2	19	1.5
31	2.6	------	42	32	------	150	------	5.5	------	2.1	17	------
TOTAL	348.6	116.1	3,011.9	2,560	559	977.3	1,343.1	614.3	373.6	31.84	130.1	275.00
MEAN	11.2	3.87	97.2	82.6	20.0	31.5	44.8	19.8	12.5	1.03	4.20	9.17
MAX	85	12	800	500	43	458	209	220	144	2.4	19	170
MIN	2.6	2.4	4.4	24	11	8.9	7.1	5.3	3.6	.32	1.0	.80
CFSM	.43	.15	3.77	3.20	.78	1.22	1.74	.77	.48	.04	.16	.36
IN	.50	.17	4.34	3.69	.81	1.41	1.94	.89	.54	.05	.19	.40

CAL YR 1973 TOTAL 12,504.30 MEAN 34.3 MAX 800 MIN .60 CFSM 1.33 IN 18.03
WTR YR 1974 TOTAL 10,340.84 MEAN 28.3 MAX 800 MIN .32 CFSM 1.10 IN 14.91

PEAK DISCHARGE (BASE, 820 FT^3/S)

NOTE.--NO GAGE-HEIGHT RECORD DEC. 20-22.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	UNKNOWN	6.35	2,400	3-30	1630	5.62	1,680
12-26	1930	5.47	1,560	5-12	1900	4.80	1,100
1-21	UNKNOWN	5.84	1,910				

01656960 CUB RUN NEAR BULL RUN, VA.

LOCATION.--Lat 38°49'16", long 77°27'57", Fairfax County, on right bank 20 ft (6 m) downstream from bridge on State Highway 658, 0.6 mi (1.0 km) downstream from Big Rocky Run, 1.2 mi (1.9 km) southeast of Bull Run, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--49.9 mi² (129.2 km²).

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 151.54 ft (46.189 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 2,400 ft³/s (68.0 m³/s) Dec. 21 (gage height, 10.70 ft or 3.261 m); minimum, 1.4 ft³/s (0.040 m³/s) Oct. 27.
Period of record: Maximum discharge, 3,080 ft³/s (87.2 m³/s) Apr. 27, 1973 (gage height, 11.94 ft or 3.639 m); minimum, 1.4 ft³/s (0.040 m³/s) Oct. 27, 1973.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	5.8	5.8	158	35	18	113	7.9	34	5.4	3.1	6.4
2	177	2.9	5.8	79	30	22	70	7.6	381	4.8	3.1	4.5
3	116	3.5	5.8	76	29	28	49	12	169	4.5	3.6	21
4	31	3.2	5.8	372	27	24	129	10	47	4.2	6.6	49
5	18	7.6	25	121	23	21	210	8.7	24	4.2	8.7	9.2
6	12	9.1	34	76	20	18	128	12	17	5.6	4.4	6.8
7	10	5.8	18	60	24	23	60	10	13	5.4	4.3	264
8	8.0	5.8	12	48	32	28	73	8.4	11	4.3	3.9	42
9	8.0	13	464	75	26	25	396	74	10	4.0	3.9	12
10	7.1	9.1	110	237	24	21	138	77	8.7	3.9	3.9	7.0
11	6.2	7.1	44	318	25	18	59	26	7.2	3.7	3.5	6.5
12	5.8	6.6	29	175	24	19	46	317	6.5	3.4	3.4	5.7
13	5.3	6.2	24	74	46	19	52	460	6.2	3.3	3.4	4.9
14	3.5	5.3	29	48	74	17	59	63	5.9	3.1	3.2	4.5
15	4.0	4.8	24	42	48	15	48	30	5.7	3.0	3.2	4.3
16	2.6	4.4	19	44	32	15	32	21	23	2.9	3.1	4.2
17	2.3	4.0	22	42	32	17	26	15	251	2.9	6.6	4.0
18	2.3	4.0	20	34	32	16	22	12	31	2.9	7.9	3.8
19	2.3	5.3	19	30	29	15	20	10	11	2.9	5.6	3.7
20	2.6	5.3	32	29	31	15	18	10	8.4	2.9	4.4	3.5
21	1.7	4.8	1,720	557	26	116	16	8.7	7.6	2.8	4.9	3.4
22	1.7	4.8	355	259	40	114	16	8.4	6.7	2.8	3.9	3.7
23	2.3	4.8	115	96	52	44	23	16	21	2.8	3.8	3.5
24	2.0	4.4	89	68	30	32	18	17	17	3.0	3.5	3.4
25	1.7	5.3	72	181	30	26	15	10	10	2.9	3.4	3.3
26	1.7	5.3	643	105	29	22	14	7.9	7.2	2.9	3.3	3.4
27	1.4	4.4	928	118	20	20	12	7.6	7.4	2.9	3.2	3.3
28	2.0	6.2	158	81	18	17	11	8.7	7.0	2.9	3.1	20
29	22	10	90	65	------	16	10	7.2	7.0	2.9	4.0	14
30	14	6.2	71	49	------	602	9.0	12	6.4	5.5	5.6	5.7
31	8.0	------	60	41	------	622	------	7.7	------	3.6	26	------
TOTAL	487.8	175.0	5,249.2	3,758	888	2,025	1,862.0	1,302.8	1,167.9	112.3	154.5	530.7
MEAN	15.7	5.83	169	121	31.7	65.3	62.1	42.0	38.9	3.62	4.98	17.7
MAX	177	13	1,720	557	74	622	396	460	381	5.6	26	264
MIN	1.4	2.9	5.8	29	18	15	9.0	7.2	5.7	2.8	3.1	3.3
CFSM	.31	.12	3.39	2.42	.64	1.31	1.24	.84	.78	.07	.10	.35
IN	.36	.13	3.91	2.80	.66	1.51	1.39	.97	.87	.08	.12	.40

CAL YR 1973 TOTAL 28,238.9 MEAN 77.4 MAX 1,720 MIN 1.4 CFSM 1.55 IN 21.05
WTR YR 1974 TOTAL 17,713.2 MEAN 48.5 MAX 1,720 MIN 1.4 CFSM .97 IN 13.21

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1600	10.70	2,400	3-30	2400	9.40	1,750
12-27	0200	9.77	1,930	5-12	2330	8.87	1,540
1-21	2030	8.82	1,500				

01657000 BULL RUN NEAR MANASSAS, VA.

LOCATION.--Lat 38°47'50", long 77°27'28", Fairfax County, on left bank at upstream side of bridge on State Highway 616, 0.5 mi (0.8 km) downstream from Cub Run, and 3.2 mi (5.1 km) north of Manassas.

DRAINAGE AREA.--148 mi^2 (383 km^2).

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 138.76 ft (42.294 m) above mean sea level. Prior to Dec. 14, 1967, at downstream side of former highway bridge at same datum.

AVERAGE DISCHARGE.--24 years, 151 ft^3/s or 4.276 m^3/s (13.86 in/yr or 352 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,700 ft^3/s (190 m^3/s) Dec. 21 (gage height, 14.08 ft or 4.292 m); minimum daily, 5.2 ft^3/s (0.15 m^3/s) July 20-29.

Period of record: Maximum discharge, 76,100 ft^3/s (2,160 m^3/s) June 22, 1972 (gage height, 37.80 ft or 11.521 m, from floodmarks), from rating curve extended above 10,600 ft^3/s (300 m^3/s) on basis of contracted-opening measurement at gage height 19.27 ft (5.873 m) and slope-area measurement of peak flow; minimum, 0.10 ft^3/s (0.003 m^3/s) many days in September 1954, and Oct. 14, 1954; minimum gage height, 0.96 ft (0.293 m) July 15, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	20	18	388	112	62	203	31	57	20	11	40
2	334	12	15	224	100	68	149	28	515	17	11	24
3	340	14	14	200	98	85	122	41	275	15	16	109
4	93	17	14	841	91	75	222	44	107	14	22	114
5	51	23	63	342	79	66	338	36	73	14	27	57
6	34	33	107	227	74	62	244	43	56	17	17	63
7	26	24	45	193	84	66	137	41	47	16	17	493
8	23	20	28	159	91	66	150	33	43	14	15	128
9	22	27	1,020	238	84	60	744	123	40	13	14	73
10	22	29	350	540	81	53	212	137	35	11	13	51
11	22	26	145	749	82	49	140	74	29	10	13	51
12	19	22	95	471	77	51	119	398	24	9.0	11	40
13	18	19	81	203	111	55	121	806	21	8.0	11	29
14	16	18	93	152	153	48	127	131	20	7.0	11	24
15	15	17	74	136	121	43	116	93	19	6.0	10	20
16	14	18	59	136	94	43	90	89	62	5.6	10	18
17	12	16	63	126	93	49	80	66	269	5,4	25	16
18	11	14	66	105	93	46	73	53	81	5.3	57	14
19	10	15	59	96	85	58	68	47	45	5.3	49	13
20	11	14	87	92	89	42	64	46	34	5.2	20	12
21	10	13	4,150	1,290	75	152	57	40	28	5.2	17	12
22	10	14	1,660	755	96	181	55	36	27	5.2	16	13
23	11	14	326	234	130	98	65	57	150	5.2	36	12
24	12	13	255	180	87	77	61	66	50	5.2	24	12
25	12	13	212	368	78	64	50	45	35	5.2	16	12
26	11	14	1,310	232	69	56	45	34	26	5.2	11	12
27	11	13	2,790	259	62	52	41	29	26	5.2	10	11
28	9.7	15	464	197	62	48	38	31	24	5.2	11	35
29	46	16	275	169	------	48	37	29	25	5.2	24	43
30	63	25	219	142	------	970	35	38	23	22	49	23
31	26	------	191	127	------	1,370	------	32	------	16	85	------
TOTAL	1,329.7	548	14,348	9,571	2,551	4,263	4,003	2,797	2,266	302.6	679	1,574
MEAN	42.9	18.3	463	309	91.1	138	133	90.2	75.5	9.76	21.9	52.5
MAX	340	33	4,150	1,290	153	1,370	744	806	515	22	85	493
MIN	9.7	12	14	92	62	42	35	28	19	5.2	10	11
CFSM	.29	.12	3.13	2.09	.62	.93	.90	.61	.51	.07	.15	.35
IN	.33	.14	3.61	2.41	.64	1.07	1.01	.70	.57	.08	.17	.40

CAL YR 1973 TOTAL 77,417.5 MEAN 212 MAX 4,150 MIN 7.0 CFSM 1.43 IN 19.46
WTR YR 1974 TOTAL 44,232.3 MEAN 121 MAX 4,150 MIN 5.2 CFSM .82 IN 11.12

PEAK DISCHARGE (BASE, 4,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2030	14.08	6,700	12-27	0500	12.40	4,840

NOTE.--NO GAGE-HEIGHT RECORD JUNE 20 TO JULY 23.

01657415 BULL RUN NEAR CLIFTON, VA.

LOCATION.--Lat 38°46'01", long 77°24'54", Fairfax County, on left bank 0.4 mi (0.6 km) downstream from Popes Head Creek, 1.6 mi (2.6 km) upstream from Buckhall Branch, and 1.8 mi (2.9 km) southwest of Clifton.

DRAINAGE AREA.--185 mi² (479 km²).

PERIOD OF RECORD.--September 1972 to current year.

GAGE.--Water-stage recorder. Datum of gage is 123.83 ft (37.743 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 6,490 ft³/s (184 m³/s) Dec. 21 (gage height, 9.88 ft or 3.011 m), from rating curve extended as explained below; minimum, 12 ft³/s (0.34 m³/s) July 23.

Period of record: Maximum discharge, 8,910 ft³/s (252 m³/s) Apr. 27, 1973 (gage height, 12.06 ft or 3.676 m), from rating curve extended above 400 ft³/s (11.3 m³/s) on basis of runoff comparison with upstream station near Manassas; minimum, 11 ft³/s (0.31 m³/s) Sept. 10-12, 18, 1972.

Flood in June 1972 reached a stage of about 35 ft or 10.7 m (discharge, about 80,000 ft³/s or 2,270 m³/s, from rating curve extended as explained above).

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	38	36	600	202	89	528	56	52	52	17	66
2	281	29	31	356	181	96	360	50	1,020	44	16	70
3	502	26	29	280	172	120	266	77	793	38	17	224
4	104	28	30	840	160	112	444	77	249	32	15	190
5	70	35	62	528	142	99	690	64	148	27	34	89
6	54	46	118	333	128	89	622	77	109	31	28	132
7	47	44	67	266	145	104	312	73	89	29	27	865
8	41	36	52	217	154	112	337	62	82	24	23	280
9	38	42	822	246	137	107	1,190	196	80	22	30	130
10	37	42	467	765	134	89	578	336	68	20	30	85
11	36	44	147	1,020	139	82	336	139	58	18	19	73
12	34	36	94	790	134	86	263	662	50	17	19	62
13	33	35	81	372	181	89	270	1,580	45	17	18	44
14	31	34	90	260	263	80	291	316	44	16	16	34
15	28	34	81	232	211	73	252	181	42	15	15	30
16	28	34	68	232	154	75	187	172	120	14	14	27
17	27	34	71	217	151	84	157	117	605	14	41	25
18	25	33	67	184	151	77	139	91	157	14	82	23
19	25	33	67	166	137	73	125	77	77	14	66	21
20	25	34	76	157	142	68	114	77	58	13	34	21
21	26	33	3,930	1,190	123	328	101	68	56	13	27	19
22	25	34	2,410	1,210	137	465	96	60	68	13	24	20
23	26	33	506	492	220	202	125	86	248	13	42	18
24	26	34	376	356	139	157	114	117	196	14	40	17
25	28	34	298	715	123	128	91	77	117	14	26	17
26	26	32	1,150	506	107	109	82	58	80	14	22	16
27	26	32	2,830	519	91	101	77	50	86	14	20	16
28	24	34	715	408	89	94	70	52	80	13	18	40
29	60	38	420	333	------	91	66	50	70	14	36	70
30	75	38	330	266	------	1,310	64	75	62	30	124	45
31	48	------	263	232	------	1,910	------	58	------	23	134	------
TOTAL	1,884	1,061	15,754	14,288	4,247	6,699	8,347	5,231	5,009	646	1,074	2,769
MEAN	60.8	35.4	508	461	152	216	278	169	167	20.8	34.6	92.3
MAX	502	46	3,930	1,210	263	1,910	1,190	1,580	1,020	52	134	865
MIN	24	26	29	157	89	68	64	50	42	13	14	16
CFSM	.33	.19	2.75	2.49	.82	1.17	1.50	.91	.90	.11	.19	.50
IN.	.38	.21	3.17	2.87	.85	1.35	1.68	1.05	1.01	.13	.22	.56

CAL YR 1973 TOTAL 98,958 MEAN 271 MAX 5,080 MIN 16 CFSM 1.46 IN 19.90
WTR YR 1974 TOTAL 67,009 MEAN 184 MAX 3,930 MIN 13 CFSM .99 IN 13.47

PEAK DISCHARGE (BASE, 4,200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2330	9.88	6,490	12-27	0800	7.97	4,400

01658500 SOUTH FORK QUANTICO CREEK NEAR INDEPENDENT HILL, VA.

LOCATION.--Lat 38°35'14", long 77°25'44", Prince William County, on left bank at upstream side of bridge on State Highway 619, 3.4 mi (5.5 km) south of Independent Hill, 5.6 mi (9.0 km) west of Dumfries, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--7.64 mi² (19.79 km²).

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 238.88 ft (72.811 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 6.69 ft³/s or 0.189 m³/s (11.89 in/yr or 302 mm/yr).

EXTREMES.--Current year: Maximum discharge, 281 ft³/s (7.96 m³/s) May 12 (gage height, 6.03 ft or 1.838 m); minimum, 0.22 ft³/s (0.006 m³/s) July 21, 23 (gage height, 1.99 ft or 0.607 m).
Period of record: Maximum discharge, 3,940 ft³/s (112 m³/s) June 21, 1972 (gage height, 11.35 ft or 3.459 m); no flow at times in 1954, 1957, 1962-66.

REMARKS.--Records good except those below 2.0 ft³/s (0.057 m³/s), which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.5	3.1	28	6.1	5.1	14	3.2	5.8	3.3	.42	.38
2	22	4.3	3.0	11	5.9	6.0	12	3.0	46	3.2	.50	.32
3	5.6	5.0	3.1	12	6.8	6.1	9.0	6.2	19	2.1	.73	2.3
4	1.7	5.4	3.2	27	7.2	5.5	9.9	4.4	7.0	1.9	.54	3.0
5	.99	7.1	15	14	5.6	5.1	14	3.6	4.2	1.5	.55	.90
6	.73	6.8	7.1	9.8	5.5	5.2	12	5.6	3.4	1.5	.39	3.0
7	.59	6.0	3.3	8.1	9.0	6.9	8.4	4.1	3.1	1.5	.64	23
8	.65	6.3	2.7	6.6	7.3	5.7	18	3.5	3.3	1.4	.60	3.4
9	.75	4.5	61	14	6.3	4.9	60	8.4	3.0	1.1	1.7	1.8
10	1.6	2.1	13	38	5.9	4.9	17	7.0	2.3	1.1	2.0	1.4
11	.81	1.6	5.9	33	6.1	4.6	12	4.3	1.9	1.0	.87	1.8
12	.54	1.5	4.3	17	6.3	8.9	9.8	72	1.6	.79	.54	1.5
13	.50	1.5	4.9	10	8.1	6.7	10	42	1.7	.69	.59	1.1
14	.36	2.1	7.6	8.2	7.2	5.5	9.4	11	1.4	.60	.49	.80
15	.33	2.3	4.6	7.6	6.0	5.1	8.2	6.2	1.3	.62	.38	.70
16	.49	2.6	4.1	7.1	5.6	7.7	6.6	4.5	4.3	.66	.38	.60
17	.68	2.5	4.8	6.3	6.3	11	6.2	3.7	2.9	.60	1.5	.52
18	.86	2.5	4.5	5.5	5.9	7.2	6.1	3.3	1.9	.43	2.2	.52
19	.70	3.0	4.3	5.6	5.6	6.7	5.6	3.2	1.4	.44	1.7	.52
20	.81	3.1	10	5.4	5.7	11	5.1	3.3	1.4	.48	1.1	.52
21	.90	3.2	145	33	4.7	45	4.9	2.8	1.3	.35	.70	.52
22	.92	3.3	24	18	8.8	19	4.9	2.6	8.0	.36	1.5	.52
23	.87	3.0	12	11	8.1	11	11	7.3	29	.31	2.2	.38
24	.96	3.0	9.6	10	5.8	8.5	6.5	5.2	10	.47	1.0	.38
25	1.0	3.5	8.8	21	6.0	6.5	5.3	5.8	4.3	.39	.60	.38
26	1.0	3.4	39	13	5.3	6.8	4.8	3.3	6.0	.46	.52	.38
27	1.1	3.6	45	12	5.0	5.8	4.5	3.1	24	.53	.60	.38
28	1.4	4.7	15	9.7	5.1	5.7	4.2	3.0	7.5	.50	.52	2.6
29	5.2	4.4	10	10	------	6.0	4.0	2.6	6.4	.39	.60	1.8
30	2.1	3.6	8.7	7.4	------	57	3.5	4.6	4.4	1.1	.45	.70
31	1.2	------	10	6.9	------	34	------	3.5	------	.66	.38	------
TOTAL	60.14	108.4	496.6	426.2	177.2	335.2	306.9	246.3	217.8	30.43	26.89	56.12
MEAN	1.94	3.61	16.0	13.7	6.33	10.8	10.2	7.95	7.26	.98	.87	1.87
MAX	22	7.1	145	38	9.0	57	60	72	46	3.3	2.2	23
MIN	.33	1.5	2.7	5.4	4.7	4.6	3.5	2.6	1.3	.31	.38	.32
CFSM	.25	.47	2.09	1.79	.83	1.41	1.34	1.04	.95	.13	.11	.24
IN	.29	.53	2.42	2.08	.86	1.63	1.49	1.20	1.06	.15	.13	.27

CAL YR 1973 TOTAL 3,312.49 MEAN 9.08 MAX 177 MIN .18 CFSM 1.19 IN 16.13
WTR YR 1974 TOTAL 2,488.18 MEAN 6.82 MAX 145 MIN .31 CFSM .89 IN 12.12

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1215	5.99	277	5-12	2130	6.03	281

01660400 AQUIA CREEK NEAR GARRISONVILLE, VA.

LOCATION.--Lat 38°29'25", long 77°26'02", Stafford County, on right bank at bridge on State Highway 641, 1.1 mi (1.8 km) northwest of Garrisonville, and 3.0 mi (4.8 km) upstream from Beaver Dam Run.

DRAINAGE AREA.--34.9 mi^2 (90.4 km^2).

PERIOD OF RECORD.--September 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 120 ft or 37 m (from topographic map).

EXTREMES.--Current year: Maximum discharge, 970 ft^3/s (27.5 m^3/s) Dec. 21 (gage height, 4.60 ft or 1.402 m, from high-water mark in well); minimum daily, 1.2 ft^3/s (0.034 m^3/s) Aug. 16.

Period of record: Maximum discharge, 11,600 ft^3/s (329 m^3/s) June 22, 1972 (gage height, 16.32 ft or 4.974 m), from rating curve extended above 1,520 ft^3/s (43.0 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.40 ft^3/s (0.011 m^3/s) Sept. 2, 1972.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	8.4	20	55	40	28	62	19	29	19	2.4	1.8
2	36	8.4	18	55	40	29	49	18	182	18	2.4	1.5
3	26	8.0	17	54	40	27	42	23	134	15	3.0	52
4	14	8.4	16	54	52	26	41	26	45	12	4.3	20
5	10	8.4	42	54	43	25	51	21	30	11	3.2	9.6
6	8.8	14	51	49	41	24	59	24	24	9.6	2.1	19
7	7.7	14	26	45	48	26	42	24	16	9.2	2.2	92
8	7.4	14	19	42	47	27	51	21	21	8.4	2.7	27
9	7.7	16	192	52	43	24	228	29	20	8.0	4.8	16
10	7.7	16	69	82	41	22	82	41	18	7.4	9.6	12
11	7.4	14	41	105	41	21	55	26	16	6.5	7.0	45
12	7.1	14	31	81	40	30	46	171	14	5.9	3.7	23
13	7.1	14	28	57	39	31	44	244	13	5.0	2.4	16
14	6.8	14	42	46	38	26	42	54	12	4.8	1.8	11
15	6.8	14	33	43	36	22	39	35	11	4.8	1.5	9.6
16	6.2	14	29	42	35	23	34	29	16	4.2	1.2	8.4
17	5.6	14	31	40	35	37	32	25	22	3.2	1.4	7.7
18	5.6	14	30	36	35	29	30	23	17	3.2	1.7	7.1
19	5.3	14	31	36	33	26	29	22	13	3.0	1.7	7.1
20	5.0	14	100	35	33	28	28	21	11	3.0	1.8	6.8
21	5.0	14	400	148	31	150	27	19	10	2.6	2.1	6.2
22	4.6	15	150	111	36	95	26	18	10	2.5	2.8	6.2
23	4.1	14	80	64	45	52	31	19	50	2.3	6.5	6.2
24	3.5	14	58	54	36	42	29	24	34	2.4	9.2	5.9
25	3.0	14	54	87	32	36	26	24	20	2.5	5.9	5.9
26	2.7	14	85	74	30	33	25	20	16	3.7	4.6	5.9
27	2.2	15	211	68	28	32	24	18	138	4.8	3.7	5.9
28	2.0	17	82	58	28	31	22	17	42	3.9	2.8	18
29	9.4	31	59	54	------	30	21	17	32	3.2	2.4	22
30	11	23	52	47	------	121	20	19	24	3.7	2.2	14
31	9.6	------	47	42	------	143	------	23	------	2.7	2.0	------
TOTAL	251.8	426.6	2,144	1,870	1,056	1,296	1,337	1,114	1,040	195.5	105.1	488.8
MEAN	8.12	14.2	69.2	60.3	38.1	41.8	44.5	35.9	34.7	6.31	3.39	16.3
MAX	36	31	400	148	52	150	228	244	182	19	9.6	92
MIN	2.0	8.0	16	35	28	21	20	17	10	2.3	1.2	1.5
CFSM	.23	.41	1.98	1.73	1.09	1.20	1.28	1.03	.99	.18	.10	.47
IN	.27	.45	2.29	1.99	1.14	1.38	1.43	1.19	1.11	.21	.11	.52

CAL YR 1973 TOTAL 17,238.8 MEAN 47.2 MAX 1,340 MIN 2.0 CFSM 1.35 IN 18.37
WTR YR 1974 TOTAL 11,334.8 MEAN 31.1 MAX 400 MIN 1.2 CFSM .89 IN 12.08

PEAK DISCHARGE (BASE, 500 FT^3/S)

NOTE.--NO GAGE-HEIGHT RECORD DEC. 17-26.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	UNKNOWN	4.60	970	5-12	2200	4.16	720

01661800 BUSH MILL STREAM NEAR HEATHSVILLE, VA.

LOCATION.--Lat 37°52'36", long 76°29'42", Northumberland County, on right bank 12 ft (4 m) upstream from bridge on State Highway 601, 2.2 mi (3.5 km) northwest of Howland, 3.0 mi (4.8 km) southwest of Heathsville, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--6.82 mi² (17.66 km²).

PERIOD OF RECORD.--October 1963 to March 1969, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 23.78 ft (7.248 m) above mean sea level. Prior to Mar. 19, 1969, 52 ft (16 m) downstream at datum 0.74 ft (0.226 m) lower.

AVERAGE DISCHARGE.--10 years (1963-68, 1969-74), 6.77 ft³/s or 0.192 m³/s (13.48 in/yr or 342 mm/yr).

EXTREMES.--Current year: Maximum discharge, 119 ft³/s (3.37 m³/s) Aug. 7 (gage height, 5.62 ft or 1.713 m), from rating curve extended above 62 ft³/s (1.76 m³/s); minimum, 0.57 ft³/s (0.016 m³/s) July 16, 22, 23.

Period of record: Maximum discharge, 276 ft³/s (7.82 m³/s) June 20, 1968, from rating curve extended above 109 ft³/s (3.09 m³/s); maximum gage height, 6.12 ft (1.865 m) Aug. 27, 1973; no flow many days in August and September 1966.

Flood of Aug. 20, 1969, reached a stage of 6.13 ft (1.868 m), present datum, from floodmarks (discharge, about 450 ft³/s or 12.7 m³/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	6.0	3.0	20	6.8	5.2	33	5.7	3.1	3.6	1.7	1.7
2	16	4.7	2.8	4.0	7.0	5.2	29	5.6	13	12	1.7	1.4
3	9.8	4.3	2.7	4.5	12	5.2	25	35	7.6	2.7	3.4	8.2
4	4.3	4.5	2.8	21	12	4.8	29	13	4.0	2.0	2.4	42
5	3.5	9.3	3.1	6.1	7.4	4.3	27	8.8	3.0	1.6	3.1	12
6	2.8	5.2	3.1	3.6	6.8	4.0	33	17	2.5	2.2	2.0	27
7	2.7	3.6	2.6	4.5	10	4.1	23	12	2.8	1.9	63	48
8	2.9	3.2	3.6	3.0	7.9	4.1	22	7.9	4.3	1.5	18	21
9	3.0	5.9	33	13	7.4	4.0	27	8.8	3.2	1.2	18	12
10	2.8	3.8	7.9	6.3	6.1	3.7	21	10	2.5	1.1	24	9.1
11	2.7	2.8	4.7	4.5	6.8	5.0	18	7.9	2.0	2.2	8.6	7.4
12	2.6	2.7	3.7	3.2	7.2	16	18	9.3	1.7	1.2	5.0	6.5
13	2.7	2.7	5.4	2.5	8.8	7.0	17	13	1.9	.95	3.8	5.0
14	2.4	2.8	7.9	2.2	6.8	5.2	17	6.5	1.7	.80	3.6	4.2
15	2.3	3.0	4.0	2.7	5.6	4.5	16	5.0	1.7	.70	3.2	3.8
16	2.3	3.4	14	2.5	8.0	16	13	4.2	16	5.9	2.5	3.6
17	2.3	3.1	20	2.4	15	18	13	3.6	9.9	1.7	20	3.2
18	2.4	3.1	6.8	2.1	6.8	7.9	12	3.1	3.2	1.1	41	3.2
19	2.6	3.8	4.8	2.1	6.1	7.6	12	3.1	2.4	1.0	11	2.8
20	2.8	3.4	12	3.1	5.9	7.4	11	3.1	1.9	.90	6.8	2.6
21	2.8	3.4	38	11	4.3	11	11	2.6	1.7	.75	4.7	2.6
22	2.9	3.4	11	4.7	7.9	8.1	11	2.5	1.7	.70	4.2	2.5
23	3.0	3.2	5.7	3.1	5.7	5.9	26	5.2	2.2	.65	5.9	2.7
24	3.2	3.2	4.2	4.5	4.0	5.7	14	5.6	8.6	.70	5.0	2.4
25	3.5	3.6	3.6	11	4.5	5.0	12	3.2	3.0	.80	4.2	2.4
26	3.9	3.6	3.2	10	4.5	5.2	11	2.6	2.4	3.8	4.7	2.3
27	3.8	3.7	3.1	11	4.8	5.2	9.1	17	2.4	41	3.4	2.2
28	3.9	4.3	2.8	9.1	5.6	5.0	8.1	6.5	5.0	5.7	2.5	3.8
29	10	5.0	2.6	12	———	18	7.4	3.7	3.6	2.7	2.1	4.8
30	5.7	3.4	2.7	7.4	———	73	6.5	3.4	2.5	2.7	1.7	2.4
31	4.7	———	7.0	7.0	———	44	———	3.4	———	2.1	2.4	———
TOTAL	122.9	118.1	231.8	204.1	201.7	325.3	532.1	238.3	121.5	107.85	283.6	252.8
MEAN	3.96	3.94	7.48	6.58	7.20	10.5	17.7	7.69	4.05	3.48	9.15	8.43
MAX	16	9.3	38	21	15	73	33	35	16	41	63	48
MIN	2.3	2.7	2.6	2.1	4.0	3.7	6.5	2.5	1.7	.65	1.7	1.4
CFSM	.58	.58	1.10	.96	1.06	1.54	2.60	1.13	.59	.51	1.34	1.24
IN	.67	.64	1.26	1.11	1.10	1.77	2.90	1.30	.66	.59	1.55	1.38

CAL YR 1973	TOTAL 2,759.70	MEAN 7.56	MAX 63	MIN 1.2	CFSM 1.11	IN 15.05
WTR YR 1974	TOTAL 2,740.05	MEAN 7.51	MAX 73	MIN .65	CFSM 1.10	IN 14.95

PEAK DISCHARGE (BASE, 100 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
8- 7	1030	5.62	119	8-17	2400	5.19	103

01662000 RAPPAHANNOCK RIVER NEAR WARRENTON, VA.

LOCATION.--Lat 38°41'05", long 77°54'15", Fauquier County, on left bank 50 ft (20 m) downstream from bridge on U.S. Highway 211, 0.9 mi (1.4 km) downstream from Carter Run, 6.2 mi (10.0 km) southwest of Warrenton, 15 mi (24 km) upstream from Hazel River, and at mile 53.0.

DRAINAGE AREA.--195 mi² (505 km²).

PERIOD OF RECORD.--August 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 312.57 ft (95.271 m) above mean sea level. Oct. 8, 1942, to Dec. 17, 1944, nonrecording gage 50 ft (20 m) upstream at present datum.

AVERAGE DISCHARGE.--32 years, 189 ft³/s or 5.352 m³/s (13.16 in/yr or 334 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,650 ft³/s (103 m³/s) Dec. 21 (gage height, 10.06 ft or 3.066 m); minimum, 24 ft³/s (0.68 m³/s) July 23 (gage height, 1.84 ft or 0.561 m).
Period of record: Maximum discharge, 32,000 ft³/s (906 m³/s) Oct. 15, 1942 (gage height, 23.5 ft or 7.16 m, from floodmark), from rating curve extended above 24,000 ft³/s (680 m³/s); minimum daily, 0.70 ft³/s (0.020 m³/s) Oct. 4, 5, 1954.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1302: 1944(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	139	80	419	270	178	415	129	185	111	30	80
2	288	120	76	349	255	185	329	121	1,240	97	25	59
3	342	107	74	324	254	198	277	163	1,070	85	26	149
4	162	100	76	410	237	175	365	146	560	78	44	341
5	120	109	96	349	219	164	487	127	399	72	101	134
6	98	143	169	311	211	160	466	146	314	105	45	100
7	86	110	112	287	214	173	346	135	269	89	34	364
8	85	102	97	260	216	162	325	123	253	77	31	220
9	85	117	515	265	210	152	556	155	231	65	46	147
10	88	118	440	344	195	159	418	173	201	59	64	120
11	83	102	266	459	208	140	343	138	174	57	56	126
12	80	99	201	510	195	155	312	632	156	49	38	348
13	77	97	178	389	209	155	301	1,330	145	44	34	154
14	74	95	177	338	235	140	302	482	137	40	32	108
15	70	94	151	317	208	135	267	341	132	38	28	88
16	57	92	142	311	192	138	234	361	202	37	25	76
17	52	86	131	286	196	150	219	269	183	34	117	70
18	62	82	143	253	185	136	210	226	142	33	110	65
19	64	83	169	243	182	134	202	267	121	33	70	59
20	65	83	182	234	200	135	193	287	121	31	53	53
21	66	81	2,430	653	172	160	184	222	138	28	39	51
22	64	84	1,070	690	196	220	179	190	126	26	89	48
23	64	83	594	474	245	162	188	200	255	24	123	46
24	55	81	448	406	196	152	173	240	230	30	60	41
25	64	81	371	459	194	140	165	200	159	35	45	41
26	54	80	847	403	171	134	158	170	134	33	87	41
27	52	81	2,120	419	171	134	151	152	149	37	57	37
28	61	92	1,010	374	180	129	147	143	149	38	45	42
29	473	96	680	350	------	129	145	135	146	32	150	48
30	292	88	544	314	------	478	136	150	131	88	79	39
31	162	------	447	292	------	846	------	141	------	46	169	------
TOTAL	3,568	2,925	14,036	11,492	5,816	5,801	8,193	7,694	7,852	1,651	1,952	3,295
MEAN	115	97.5	453	371	208	187	273	248	262	53.3	63.0	110
MAX	473	143	2,430	690	270	846	556	1,330	1,240	111	169	364
MIN	51	80	74	234	171	129	136	121	121	24	25	37
CFSM	.59	.50	2.32	1.90	1.07	.96	1.40	1.27	1.34	.27	.32	.56
IN	.68	.56	2.68	2.19	1.11	1.11	1.56	1.47	1.50	.31	.37	.63

CAL YR 1973 TOTAL 105,734 MEAN 290 MAX 2,430 MIN 47 CFSM 1.49 IN 20.17
WTR YR 1974 TOTAL 74,275 MEAN 203 MAX 2,430 MIN 24 CFSM 1.04 IN 14.17

PEAK DISCHARGE (BASE, 1,800 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1400	10.06	3,650	5-13	0100	8.63	2,740
12-27	0230	8.97	2,940	6- 2	1630	7.53	2,160

01662500 RUSH RIVER AT WASHINGTON, VA.

LOCATION.--Lat 38°42'50", long 78°09'05", Rappahannock County, on left bank 20 ft (6 m) upstream from bridge on old U.S. Highways 211 and 522, 0.5 mi (0.8 km) east of Washington, and 1.6 mi (2.6 km) upstream from Big Branch.

DRAINAGE AREA.--14.7 mi² (38.1 km²).

PERIOD OF RECORD.--August 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 597.97 ft (182.261 m) above mean sea level.

AVERAGE DISCHARGE.--21 years, 16.4 ft³/s or 0.464 m³/s (15.15 in/yr or 385 mm/yr).

EXTREMES.--Current year: Maximum discharge, 325 ft³/s (9.20 m³/s) May 12 (gage height, 3.32 ft or 1.012 m); minimum, 0.37 ft³/s (0.010 m³/s) Aug. 22.

Period of record: Maximum discharge, 2,500 ft³/s (70.8 m³/s) Aug. 18, 1955 (gage height, 8.14 ft or 2.481 m); no flow Sept. 4, 1953, and many days in 1954, 1963-66.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	9.5	4.3	37	24	14	29	8.5	20	4.3	.76	2.9
2	9.6	8.7	4.1	32	22	16	27	8.8	84	3.5	.70	2.1
3	5.6	7.8	4.1	29	22	15	25	12	85	3.0	.88	12
4	4.0	7.1	4.3	32	19	15	33	9.7	53	2.8	.94	9.4
5	3.2	8.7	7.1	27	17	14	34	9.1	44	2.8	1.3	4.4
6	2.8	8.4	8.9	26	17	15	31	11	40	3.2	.82	4.4
7	2.6	7.6	7.8	24	17	15	27	9.4	29	3.0	.76	17
8	2.3	7.5	7.3	21	15	15	30	10	33	2.4	.76	7.2
9	2.9	9.2	32	24	15	14	35	11	28	2.0	1.9	5.2
10	3.3	8.4	17	32	15	13	29	11	26	3.3	3.5	4.1
11	2.9	8.0	12	39	15	14	27	11	24	4.4	2.0	5.0
12	2.9	7.1	11	39	14	16	26	97	12	2.8	1.5	6.4
13	2.7	6.8	13	35	15	15	26	94	9.1	2.1	1.4	3.8
14	2.8	6.6	9.8	32	16	11	25	68	8.8	1.9	.88	2.8
15	2.7	6.2	8.7	31	13	11	22	57	8.8	1.8	.82	2.4
16	2.1	6.2	8.2	36	14	11	19	49	9.7	1.4	.70	2.0
17	2.1	5.5	7.5	26	15	12	17	39	9.7	1.0	.82	1.5
18	2.3	5.1	7.7	22	14	11	17	33	7.2	1.0	.70	1.4
19	2.5	5.1	7.5	21	14	11	15	40	6.2	1.0	.82	1.3
20	2.6	4.9	43	21	14	11	15	26	6.2	1.0	.94	1.0
21	2.5	4.7	123	56	12	16	14	21	5.6	.94	.58	1.1
22	2.5	4.6	72	50	19	15	12	19	5.4	.70	2.8	2.6
23	2.7	4.1	55	44	18	14	14	20	8.8	.70	2.2	3.3
24	2.7	4.3	45	41	17	14	12	17	7.8	1.2	1.4	4.6
25	2.6	4.1	36	42	16	13	12	15	5.8	1.1	1.0	3.0
26	2.5	4.0	88	37	15	12	11	13	5.8	1.7	8.6	3.8
27	2.3	4.1	113	36	14	12	10	12	6.0	3.0	4.3	3.2
28	3.5	4.7	79	32	14	12	9.7	11	6.2	1.7	3.8	3.3
29	35	5.1	61	32	------	12	9.4	9.7	6.0	1.4	8.2	4.0
30	14	4.6	50	27	------	26	9.1	12	5.6	1.4	4.3	1.3
31	10	-----	42	26	------	34	------	11	------	1.1	4.1	------
TOTAL	144.5	188.9	984.3	1,003	452	449	622.2	775.2	603.7	63.64	64.18	126.5
MEAN	4.66	6.30	31.8	32.4	16.1	14.5	20.7	25.0	20.1	2.05	2.07	4.22
MAX	35	9.5	123	56	24	34	35	97	85	4.4	8.6	17
MIN	2.1	4.0	4.1	21	12	11	9.1	8.5	5.4	.70	.58	1.0
CFSM	.32	.43	2.16	2.20	1.10	.99	1.41	1.70	1.37	.14	.14	.29
IN	.37	.48	2.49	2.54	1.14	1.14	1.57	1.96	1.53	.16	.16	.32

CAL YR 1973 TOTAL 7,338.91 MEAN 20.1 MAX 164 MIN .46 CFSM 1.37 IN 18.57
WTR YR 1974 TOTAL 5,477.12 MEAN 15.0 MAX 123 MIN .58 CFSM 1.02 IN 13.86

PEAK DISCHARGE (BASE, 350 FT³/S).--NO PEAK ABOVE BASE.

01662800 BATTLE RUN NEAR LAUREL MILLS, VA.

LOCATION.--Lat 38°39'20", long 78°04'27", Rappahannock County, on left bank just upstream from bridge on State Highway 729, 0.8 mi (1.3 km) upstream from mouth, and 1.0 mi (1.6 km) northeast of Laurel Mills.

DRAINAGE AREA.--27.6 mi² (71.5 km²).

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 374.62 ft (114.184 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 24.2 ft³/s or 0.685 m³/s (11.91 in/yr or 303 mm/yr).

EXTREMES.--Water year 1972: Maximum discharge, 2,850 ft³/s (80.7 m³/s) June 22; maximum gage height, 11.53 ft (3.514 m) June 21; minimum discharge, 5.0 ft³/s (0.14 m³/s) Sept. 27.

Water year 1973: Maximum discharge, 1,270 ft³/s (35.7 m³/s) Aug. 18 (gage height, 8.02 ft or 2.444 m); minimum, 4.8 ft³/s (0.14 m³/s) Aug. 12, 13.

Water year 1974: Maximum discharge, 760 ft³/s (21.5 m³/s) May 12 (gage height, 6.54 ft or 1.993 m); minimum, 2.3 ft³/s (0.065 m³/s) July 21.

Period of record: Maximum discharge, 2,850 ft³/s (80.7 m³/s) June 22, 1972; maximum gage height, 11.53 ft (3.514 m) June 21, 1972; no flow many days in September 1966.

REVISIONS.--The maximum discharge for the water year 1972 has been revised to 2,850 ft³/s (80.7 m³/s) June 22, 1972; minimum, 5.0 ft³/s (0.14 m³/s) Sept. 27, 1972, superseding figures published in WRD Va. 1972.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area. WRD Va. 1972: 1971. Revised figures of discharge for the water year 1972, superseding those published in WRD Va. 1972, are given herein.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	26	43	15	14	58	26	50	36	60	35	9.7
2	11	24	36	19	14	54	26	49	32	65	27	9.7
3	12	27	33	17	25	62	25	59	30	61	28	9.7
4	10	23	30	17	27	51	24	66	30	45	26	12
5	10	23	29	20	20	50	24	56	30	49	22	11
6	9.5	22	29	17	16	47	23	52	26	44	20	10
7	8.6	22	33	17	15	43	26	50	24	40	20	9.0
8	8.5	21	32	16	14	41	30	52	22	36	18	8.7
9	8.8	22	32	16	14	39	30	62	22	32	17	8.7
10	22	22	30	18	13	39	28	54	21	30	16	7.5
11	15	22	28	17	12	38	28	52	21	28	16	7.8
12	13	22	26	16	11	38	27	50	21	28	15	8.4
13	11	22	26	16	276	36	43	48	21	31	36	8.7
14	11	22	25	16	108	40	38	51	23	27	20	10
15	11	21	25	15	78	36	36	52	21	23	21	12
16	11	21	22	14	65	38	45	52	21	39	18	8.1
17	13	21	21	13	59	49	57	65	25	208	18	6.9
18	13	21	22	15	57	38	47	55	23	61	18	8.4
19	13	21	22	15	73	36	43	56	21	39	16	7.8
20	13	21	23	15	63	36	41	102	22	30	15	6.6
21	13	20	20	15	59	34	39	62	475	27	13	8.7
22	14	20	19	15	58	38	84	51	989	24	13	7.8
23	20	22	18	15	55	36	74	46	232	22	12	6.3
24	52	24	19	16	57	32	68	42	120	20	12	5.8
25	110	26	19	15	71	32	59	39	85	19	11	5.8
26	62	23	18	13	121	30	54	37	67	18	11	5.8
27	41	24	18	13	85	30	54	36	57	18	11	6.9
28	34	28	18	14	71	29	51	35	56	18	11	8.4
29	30	50	17	14	64	29	49	34	81	21	10	8.4
30	28	50	17	14	------	27	48	34	101	32	9.7	11
31	26	------	17	13	------	26	------	53	------	42	9.4	------
TOTAL	661.5	733	767	481	1,615	1,212	1,247	1,602	2,755	1,237	545.1	255.6
MEAN	21.3	24.4	24.7	15.5	55.7	39.1	41.6	51.7	91.8	39.9	17.6	8.52
MAX	110	50	43	20	276	62	84	102	989	208	36	12
MIN	7.1	20	17	13	11	26	23	34	21	18	9.4	5.8
CFSM	.77	.88	.89	.56	2.02	1.42	1.51	1.87	3.33	1.45	.64	.31
IN	.89	.99	1.03	.65	2.18	1.63	1.68	2.16	3.71	1.67	.73	.34

CAL YR 1971 TOTAL 10,092.0 MEAN 27.6 MAX 232 MIN 4.0 CFSM 1.00 IN 13.60
WTR YR 1972 TOTAL 13,111.2 MEAN 35.8 MAX 989 MIN 5.8 CFSM 1.30 IN 17.67

PEAK DISCHARGE (BASE, 310 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-25	1500	6.54	319	6-22	0300	10.72	2,850
2-13	1100	9.59	800	7-17	1830	8.64	1,540

01662800 BATTLE RUN NEAR LAUREL MILLS VA --Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	36	64	55	59	34	65	65	47	18	7.2	9.7
2	7.8	43	52	50	340	34	75	56	41	17	11	9.7
3	7.2	36	47	52	180	36	59	57	37	16	19	9.7
4	6.9	29	44	63	113	43	84	52	35	18	9.0	9.4
5	80	25	41	55	89	43	70	47	35	18	7.8	8.7
6	290	23	78	50	80	47	59	43	58	14	6.9	8.4
7	95	21	67	47	80	45	53	41	47	12	6.6	8.7
8	26	101	92	43	72	56	84	42	36	12	7.5	8.1
9	18	51	110	42	64	52	65	46	30	11	6.6	7.8
10	14	41	92	40	58	47	73	39	27	11	6.0	7.2
11	13	35	73	38	54	47	62	36	24	14	5.8	6.9
12	12	30	68	37	52	44	59	32	23	11	5.0	6.6
13	12	27	62	39	52	41	53	32	21	10	5.8	6.0
14	11	293	56	38	52	40	48	29	20	9.4	11	35
15	10	118	120	37	64	39	45	29	18	10	8.7	12
16	10	70	95	35	56	40	44	28	18	10	8.4	9.4
17	10	52	72	34	52	78	44	29	23	9.4	10	8.7
18	9.4	44	64	34	55	60	43	29	25	9.4	257	8.4
19	21	74	60	34	47	53	40	26	21	8.7	35	7.2
20	15	180	56	33	44	48	37	30	19	14	25	7.2
21	12	81	65	30	44	47	34	28	20	11	75	7.2
22	12	64	200	113	43	44	33	25	23	10	53	7.2
23	12	52	150	81	41	40	32	26	32	13	30	7.2
24	12	46	120	61	39	38	30	32	25	10	23	6.9
25	11	45	95	52	37	38	63	41	20	9.4	21	6.6
26	11	109	80	48	37	51	60	33	17	9.0	17	6.9
27	11	89	70	66	36	43	210	36	17	8.7	14	6.9
28	42	68	66	67	34	38	125	400	17	7.8	13	6.6
29	32	57	93	106	-------	36	89	119	49	7.5	12	6.9
30	27	65	96	73	-------	38	73	73	23	7.2	11	8.1
31	23	-------	60	64	-------	42	-------	57	-------	6.9	10	-------
TOTAL	882.3	2,081	2,418	1,617	1,976	1,384	1,891	1,658	848	353.6	738.3	265.3
MEAN	28.5	69.4	78.0	52.2	70.5	44.6	63.0	53.5	28.3	11.4	23.8	8.84
MAX	290	293	200	113	340	78	210	400	58	18	257	35
MIN	6.9	21	41	30	34	34	30	25	17	6.9	5.0	6.0
CFSM	1.03	2.51	2.83	1.89	2.55	1.62	2.28	1.94	1.03	.41	.86	.32
IN	1.19	2.80	3.26	2.18	2.66	1.87	2.55	2.23	1.14	.48	1.00	.36

CAL YR 1972 TOTAL 16,331.0 MEAN 44.6 MAX 800 MIN 5.0 CFSM 1.62 IN 22.01
WTR YR 1973 TOTAL 16,110.3 MEAN 44.1 MAX 400 MIN 5.0 CFSM 1.60 IN 21.71

PEAK DISCHARGE (BASE, 310 FT^{3}/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-14	1000	7.26	975	2- 2	1000	6.66	790
11-20	0100	5.72	526	5-28	0730	7.96	1,250
11-26	0600	5.15	388	8-18	0200	8.02	1,270
1-22	1400	4.98	354				

01662800 BATTLE RUN NEAR LAUREL MILLS, VA.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	12	8.7	41	33	20	39	15	17	10	2.8	6.6
2	37	11	8.4	34	32	23	35	15	104	9.0	2.8	6.0
3	17	10	9.0	34	31	22	30	20	57	8.4	3.2	14
4	12	10	9.0	39	29	21	40	16	40	6.9	7.6	16
5	10	14	18	33	27	20	39	15	31	8.1	6.3	8.4
6	8.7	12	13	30	26	20	36	17	27	8.7	3.6	9.0
7	8.7	11	10	29	26	20	34	15	25	8.1	3.5	36
8	8.7	11	9.4	26	25	20	37	14	23	6.9	3.3	17
9	9.4	13	60	30	26	18	51	19	21	6.0	4.8	12
10	9.4	12	34	42	24	19	42	16	19	6.0	8.4	11
11	8.7	11	24	53	23	17	39	14	16	6.9	4.6	62
12	8.7	10	20	53	23	20	36	155	16	5.3	3.8	34
13	8.4	10	18	44	23	18	36	85	14	4.3	4.1	16
14	8.1	10	17	41	24	17	35	46	13	4.1	3.5	12
15	9.0	9.7	15	39	23	17	30	39	14	4.1	3.3	9.7
16	7.2	9.4	14	36	22	17	28	36	23	3.8	3.2	8.4
17	6.9	8.7	15	33	23	17	26	28	16	3.5	14	7.8
18	7.2	8.7	14	30	21	16	25	24	12	3.3	7.2	6.9
19	7.2	9.0	13	29	22	16	24	30	11	3.3	18	6.6
20	7.5	8.4	93	28	23	17	23	24	12	3.3	9.0	6.3
21	7.2	8.7	332	100	20	21	22	21	11	2.9	6.3	6.0
22	7.2	8.7	136	67	26	18	21	20	11	2.8	26	5.5
23	7.2	8.1	66	56	24	16	23	20	21	2.9	14	5.3
24	7.2	8.1	49	49	23	16	21	19	14	3.6	11	5.0
25	7.2	8.1	43	51	23	15	20	17	11	3.3	10	5.0
26	7.5	8.1	114	47	22	15	19	16	11	3.9	10	5.0
27	7.2	9.6	131	46	23	15	18	15	12	4.1	13	4.6
28	7.5	9.4	77	45	21	15	18	13	12	3.3	8.1	5.3
29	98	8.1	59	42	------	15	17	16	13	3.2	11	5.3
30	20	8.6	48	38	------	64	16	17	13	8.3	7.5	4.1
31	14	------	43	36	------	53	------	13	------	3.2	7.8	------
TOTAL	398.2	299.6	1,450.5	1,303	688	638	880	828	640	161.1	241.7	356.8
MEAN	12.8	9.99	46.8	42.0	24.6	20.6	29.3	26.7	21.3	5.20	7.80	11.9
MAX	98	14	332	100	33	64	51	155	104	10	26	62
MIN	6.9	8.1	8.4	26	20	15	16	13	11	2.8	2.8	4.1
CFSM	.46	.36	1.70	1.52	.89	.75	1.06	.97	.77	.19	.28	.43
IN	.54	.40	1.95	1.76	.93	.86	1.19	1.12	.86	.22	.33	.48

CAL YR 1973 TOTAL 12,873.3 MEAN 35.3 MAX 670 MIN 5.0 CFSM 1.28 IN 17.35
WTR YR 1974 TOTAL 7,884.9 MEAN 21.6 MAX 332 MIN 2.8 CFSM .78 IN 10.62

PEAK DISCHARGE (BASE, 350 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-20	2400	5.64	690	5-12	1800	5.54	760
12-21	0900	6.18	650	9-11	2100	5.97	590

01663500 HAZEL RIVER AT RIXEYVILLE, VA.

LOCATION.--Lat 38°35'30", long 77°57'55", Culpeper County, on right bank at downstream side of bridge on State Highway 229, 0.4 mi (0.6 km) upstream from Waterford Run, 1.1 mi (1.8 km) northeast of Rixeyville, 2.8 mi (4.5 km) downstream from Thornton River, and 9.1 mi (14.6 km) upstream from mouth.

DRAINAGE AREA.--287 mi² (743 km²).

PERIOD OF RECORD.--August 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 288.30 ft (87.874 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 328 ft³/s or 9.289 m³/s (15.52 in/yr or 394 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,010 ft³/s (170 m³/s) Dec. 21 (gage height, 14.29 ft or 4.356 m); minimum, 33 ft³/s (0.93 m³/s) Aug. 2, 3 (gage height, 2.16 ft or 0.658 m).

Period of record: Maximum discharge, 60,000 ft³/s (1,700 m³/s) Oct. 15, 1942 (gage height, 31.8 ft or 9.69 m), from rating curve extended above 27,000 ft³/s (765 m³/s); minimum, 1.1 ft³/s (0.031 m³/s) Sept. 10-13, 1966 (gage height, 1.69 ft or 0.515 m).

Flood of Apr. 26, 1937, reached a stage of 28.4 ft (8.66 m), from floodmarks (discharge, 43,500 ft³/s or 1,230 m³/s), from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 971: 1942. WSP 1622: 1957-58. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	457	154	727	489	286	527	201	259	153	44	107
2	482	387	149	806	457	287	457	189	1,270	130	35	94
3	675	299	167	551	444	309	411	255	1,230	115	34	217
4	316	261	148	611	415	287	481	237	730	105	50	300
5	227	271	189	540	393	273	674	204	530	96	202	184
6	184	306	379	489	373	269	904	230	408	109	81	139
7	189	247	238	435	375	289	494	217	368	139	56	608
8	174	232	210	422	364	280	480	195	346	112	49	421
9	185	253	664	427	357	265	746	232	317	95	35	260
10	195	245	780	611	367	263	581	258	279	88	221	200
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

PEAK DISCHARGE [illegible]

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.

LOCATION.--Lat 38°31'50", long 77°48'50", Fauquier County, on left bank 80 ft (20 m) upstream from bridge on U.S. Highway 29 at Remington, 0.3 mi (0.5 km) upstream from Tinpot Run, 0.4 mi (0.6 km) downstream from Ruffans Run, 2.5 mi (4.0 km) downstream from Hazel River, and at mile 35.2.

DRAINAGE AREA.--620 mi² (1,606 km²).

PERIOD OF RECORD.--October 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 252.53 ft (76.971 m) above mean sea level. Prior to Nov. 21, 1951, nonrecording gage at bridge 80 ft (20 m) downstream at same datum.

AVERAGE DISCHARGE.--32 years, 655 ft³/s or 18.55 m³/s (14.35 in/yr or 364 mm/yr).

EXTREMES.--Current year: Maximum dischrge, 11,200 ft³/s (317 m³/s) Dec. 21 (gage height, 15.09 ft or 4.599 m); minimum, 70 ft³/s (1.98 m³/s) Aug. [illegible] (gage height, 3.00 ft or 0.914 m).

Period of record: Maximum dischrge, 90,000 ft³/s (2,550 m³/s) Oct. 16, 1942 (gage height, 30.0 ft or 9.14 m, from floodmarks), from ratig curve extended above 43,000 ft³/s (1,220 m³/s) on basis of slope-area determination of peak flow; minimum, 2.8 ft³/s (0.079 m³/s) Sept. 13, 1966 (gage height, 2.31 ft or 0.704 m).

Maximum flood since at least 182[illegible], that of Oct. 16, 1942.

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 1171: 184. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	1,020	[illegible]	[illegible]	1,280	377	[illegible]	350	112	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,030	351	2,240	295	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	633	3,320	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	903	[illegible]	1,620	241	[illegible]	[illegible]
5	[illegible]	[illegible]	330	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,140	221	324	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	620	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	1,020	[illegible]	[illegible]	1,070	[illegible]	[illegible]	276	130	1,300
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,000	[illegible]	763	251	109	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	658	[illegible]	[illegible]	116	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	511	203	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,500	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,190	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	130	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	117	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]				

01665000 MOUNTAIN RUN NEAR CULPEPER, VA.

LOCATION.--Lat 38°28'50", long 78°03'10", Culpeper County, on left bank 30 ft (9 m) upstream from bridge on State Highway 641, 2.4 mi (3.9 km) upstream from Bond Branch (revised), and 3.0 mi (4.8 km) west of Culpeper.

DRAINAGE AREA.--15.9 mi² (41.2 km²), of which 10.9 mi² (28.2 km²) are above flood-detention structures.

PERIOD OF RECORD.--September 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 389.46 ft (118.707 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 15.6 ft³/s or 0.442 m³/s (13.32 in/yr or 338 mm/yr).

EXTREMES.--Current year: Maximum discharge, 378 ft³/s (10.7 m³/s) Dec. 21 (gage height, 5.46 ft or 1.664 m); minimum, 1.2 ft³/s (0.034 m³/s) July 23.
Period of record: Maximum discharge, 5,440 ft³/s (154 m³/s) Aug. 18, 1955, from rating curve extended above 910 ft³/s (25.8 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 11.20 ft (3.414 m) Dec. 4, 1950; minimum discharge, 0.09 ft³/s (0.003 m³/s) Sept. 30, Oct. 1, 1954.

REMARKS.--Records good. Some regulation since 1959 by two reservoirs (combined flood storage, 2,240 acre-ft or 2.76 hm³; 531 acre-ft or 0.655 hm³ additional storage used for low-water regulation for municipal supply for town of Culpeper). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1332: 1950-51. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	8.7	8.3	32	20	14	30	7.6	11	6.9	2.9	4.2
2	38	7.8	7.8	25	20	14	24	7.2	71	6.1	2.4	4.6
3	29	7.6	8.0	24	19	14	20	9.3	51	5.8	2.4	35
4	14	7.4	8.3	30	18	13	24	8.7	24	4.9	2.6	15
5	9.9	10	28	26	18	13	32	8.0	16	4.5	4.2	8.0
6	8.5	11	30	22	18	14	28	9.0	12	4.5	3.7	12
7	7.6	9.6	18	20	20	15	20	8.3	11	4.9	3.3	55
8	8.0	9.0	14	18	20	14	26	7.6	11	4.7	3.3	20
9	8.0	12	89	22	18	13	44	16	11	4.4	4.0	11
10	7.6	11	40	38	18	12	27	15	9.6	3.7	5.6	8.5
11	7.2	9.6	23	44	18	11	22	10	8.5	4.4	5.1	10
12	6.9	9.0	18	33	18	14	18	50	7.8	3.3	4.4	16
13	6.7	9.0	16	25	18	14	18	62	7.6	2.9	4.4	9.3
14	6.3	8.7	17	22	18	12	19	24	7.4	2.6	3.8	6.9
15	6.0	8.7	14	21	16	11	20	17	7.6	2.5	4.4	6.0
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
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01665500 RAPIDAN RIVER NEAR RUCKERSVILLE, VA.

LOCATION.--Lat 38°16'50", long 78°20'25", Madison County, on left bank at upstream side of bridge on U.S. Highway 29, 0.2 mi (0.3 km) downstream from Elk Run, 1.7 mi (2.7 km) upstream from White Run, 3.6 mi (5.8 km) northeast of Ruckersville, and at mile 63.5.

DRAINAGE AREA.--114 mi² (295 km²).

PERIOD OF RECORD.--September 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 439.44 ft (133.941 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 144 ft³/s or 4.078 m³/s (17.15 in/yr or 436 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,150 ft³/s (89.2 m³/s) Dec. 21 (gage height, 7.00 ft or 2.134 m); minimum, 29 ft³/s (0.82 m³/s) July 23 (gage height, 0.73 ft or 0.223 m).

Period of record: Maximum discharge, 30,700 ft³/s (869 m³/s) Oct. 15, 1942 (gage height, 20.8 ft or 6.34 m, from floodmark in gage house), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement at gage height 17.78 ft (5.419 m); minimum daily, 0.90 ft³/s (0.025 m³/s) Sept. 12, 1966.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1171: 1944-45(M). WSP 1382: 1943(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	286	71	400	250	126	151	68	102	55	32	38
2	313	228	69	341	238	119	143	68	259	53	31	39
3	225	195	69	317	228	116	135	94	217	51	34	99
4	126	166	69	317	213	112	186	74	156	45	126	107
5	95	217	275	284	195	104	269	69	139	43	85	95
6	78	186	322	265	186	98	242	78	120	45	42	72
7	70	158	222	247	186	110	213	68	107	52	39	333
8	79	143	183	225	177	97	230	65	100	46	46	139
9	70	159	585	238	166	91	278	102	90	41	45	88
10	66	140	433	292	155	91	224	80	78	39	55	70
11	63	128	351	365	150	98	203	69	70	47	42	81
12	61	119	299	354	143	112	191	620	65	38	38	71
13	57	112	255	323	142	111	185	559	52	36	38	62
14	54	105	233	302	138	100	179	437	60	35	38	54
15	52	100	203	285	129	96	166	337	58	34	41	50
16	51	96	192	263	125	94	167	273	87	33	36	48
17	48	88	186	241	125	90	138	224	77	33	39	47
18	50	84	162	220	118	90	130	198	61	32	37	45
19	52	86	148	208	116	93	122	180	58	32	35	43
20	54	80	606	194	118	105	118	159	54	32	38	38
21	52	78	1,890	944	107	103	108	141	53	30	36	36
22	52	78	782	642	148	103	106	128	56	30	131	36
23	53	76	585	372	157	146	117	127	66	30	72	35
24	56	72	484	350	136	139	99	116	61	29	55	33
25	55	74	460	360	153	126	93	98	53	35	47	32
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	------	[illegible]	[illegible]	------	[illegible]	------	[illegible]	------	[illegible]	[illegible]	------
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01666500 ROBINSON RIVER NEAR LOCUST DALE, VA.

LOCATION.--Lat 38°19'30", long 78°05'45", Madison County, on right bank 100 ft (30 m) upstream from bridge on State Highway 614, 1.1 mi (1.8 km) upstream from Great Run, 1.7 mi (2.7 km) upstream from mouth, 2.0 mi (3.2 km) southeast of Locust Dale, and 3.4 mi (5.5 km) downstream from Crooked Run.

DRAINAGE AREA.--179 mi² (464 km²).

PERIOD OF RECORD.--July 1943 to current year. Prior to October 1965, published as Robertson River near Locust Dale.

GAGE.--Water-stage recorder. Datum of gage is 283.70 ft (86.472 m) above mean sea level.

AVERAGE DISCHARGE.--31 years, 211 ft³/s or 5.976 m³/s (16.01 in/yr or 407 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,800 ft³/s (164 m³/s) Dec. 21 (gage height, 14.32 ft or 4.365 m); minimum, 41 ft³/s (1.16 m³/s) July 23 (gage height, 1.17 ft or 0.357 m).
Period of record: Maximum discharge, 24,500 ft³/s (694 m³/s) June 22, 1972 (gage height, 20.92 ft or 6.376 m), from rating curve extended above 9,100 ft³/s (258 m³/s) on basis of records for other stations in Rappahannock River basin; minimum, 1.2 ft³/s (0.034 m³/s) Sept. 7, 13, 1954; minimum daily, 1.8 ft³/s (0.051 m³/s) Sept. 13, 27, 1954.
Flood of Oct. 15, 1942, reached a stage of 23.9 ft (7.28 m), from floodmarks (discharge, about 44,000 ft³/s or 1,250 m³/s).

REMARKS.--Records good. Small diurnal fluctuation at low flow caused by Banco Mill 9 mi (14 km) upstream at State Highway 231. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1171: 1948(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	310	129	516	311	186	256	134	152	102	52	99
2	490	254	126	414	294	179	230	132	515	101	48	94
3	473	224	126	384	285	178	219	163	512	89	52	584
4	259	203	126	412	272	173	200	147	318	83	54	326
5	200	237	233	384	255	168	354	136	267	78	160	157
6	160	233	302	334	244	167	337	192	207	79	76	169
7	154	202	210	313	253	181	299	128	195	[illegible]	64	[illegible]
8	138	192	188	290	243	171	385	130	178	[illegible]	61	319
9	134	207	871	310	233	163	443	174	166	[illegible]	71	210
10	146	198	559	417	224	165	348	169	158	[illegible]	181	160
11	138	183	305	[illegible]	221	162	286	142	[illegible]	87	67	234
12	136	176	387	[illegible]	213	184	273	[illegible]	176	70	71	284
13	130	171	276	388	214	168	261	[illegible]	170	63	76	151
14	126	166	259	[illegible]	210	160	254	[illegible]	115	60	63	125
15	119	162	233	[illegible]	201	162	250	363	111	58	70	113
16	117	158	[illegible]	[illegible]	194	163	220	[illegible]	132	[illegible]	[illegible]	105
17	111	149	[illegible]	[illegible]	199	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	61	[illegible]
18	110	148	[illegible]	[illegible]	[illegible]	158	[illegible]	210	114	[illegible]	[illegible]	[illegible]
19	110	146	219	[illegible]	[illegible]	156	191	193	107	61	[illegible]	[illegible]
20	109	[illegible]	[illegible]	[illegible]	192	170	[illegible]	183	102	[illegible]	70	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]				

01667500 RAPIDAN RIVER NEAR CULPEPER, VA.

LOCATION.--Lat 38°21'01", long 77°58'31", Culpeper County, on left bank 0.7 mi (1.1 km) upstream from Cedar Run and bridge on U.S. Highway 522, 8.5 mi (13.7 km) south of Culpeper, and at mile 29.6.

DRAINAGE AREA.--472 mi² (1,222 km²).

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 241.36 ft (73.567 m) above mean sea level.

AVERAGE DISCHARGE.--44 years, 513 ft³/s or 14.53 m³/s (14.76 in/yr or 375 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,360 ft³/s (265 m³/s) Dec. 21 (gage height, 13.16 ft or 4.011 m); minimum, 76 ft³/s (2.15 m³/s) July 23, 24 (gage height, 0.71 ft or 0.216 m).
Period of record: Maximum discharge, 58,100 ft³/s (1,650 m³/s) Oct. 16, 1942 (gage height, 30.3 ft or 9.24 m, from floodmark), from rating curve extended above 43,000 ft³/s (1,220 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.1 ft³/s (0.059 m³/s) Oct. 4, 5, 11, 1954; minimum daily, 2.2 ft³/s (0.062 m³/s) Oct. 4, 1954.

REMARKS.--Records good. Diurnal fluctuation at low flow caused by mills at Rapidan and on Robinson River at State Highway 231. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 741: 1931. WSP 801: 1934(M), 1936(M). WSP 1081: 1943-46. WSP 1171: 1932(M), 1933-35. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	652	282	1,580	789	424	667	292	376	245	121	190
2	810	529	271	1,190	734	411	573	279	780	222	102	173
3	1,350	449	266	1,040	718	404	529	344	1,130	203	103	1,530
4	615	393	258	1,100	729	389	577	345	655	183	113	1,110
5	443	453	413	993	655	375	883	296	520	172	379	476
6	357	568	1,100	892	609	372	938	327	438	167	204	368
7	312	425	665	825	634	420	716	312	390	192	150	2,570
8	323	384	541	754	619	395	685	280	375	194	144	1,100
9	343	398	2,080	817	584	372	1,220	344	356	173	193	554
10	303	395	1,680	970	559	362	864	434	324	154	397	443
11	282	349	1,130	1,230	543	359	718	322	290	158	229	654
12	270	341	885	1,220	518	440	656	671	265	151	164	725
13	257	334	778	1,600	509	464	630	2,580	254	133	153	462
14	244	324	788	918	500	416	609	1,260	237	125	139	347
15	227	316	672	861	478	384	600	891	232	120	127	297
16	218	315	627	816	458	380	520	718	278	111	139	257
17	207	295	646	750	476	395	483	605	347	105	139	246
18	198	285	593	690	453	361	460	533	295	99	183	234
19	188	293	580	658	437	390	448	682	236	86	142	218
20	189	287	708	630	461	389	421	454	218	83	146	205
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	------	[illegible]	[illegible]	------	[illegible]	------	[illegible]	------	[illegible]	[illegible]	------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, [illegible] FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	[illegible]	13.16	9,360	[illegible]	[illegible]	[illegible]	[illegible]

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.

LOCATION.--Lat 38°19'20", long 77°31'05", Spotsylvania County, on right bank 1.6 mi (2.6 km) upstream from dam of Virginia Electric and Power Co., 2.2 mi (3.5 km) downstream from Motts Run, 3.8 mi (6.1 km) upstream from Fredericksburg, and at mile 4.4.

DRAINAGE AREA.--1,596 mi² (4,134 km²).

PERIOD OF RECORD.--September 1907 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 55.18 ft (16.819 m) above mean sea level. Prior to Jan. 15, 1922, nonrecording gage, and Jan. 15, 1922, to Aug. 2, 1966, water-stage recorder at same site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--67 years, 1,634 ft³/s or 46.27 m³/s (13.90 in/yr or 353 mm/yr).

EXTREMES.--Current year: Maximum discharge, 29,900 ft³/s (847 m³/s) Dec. 22 (gage height, 10.99 ft or 3.350 m); minimum, 211 ft³/s (5.98 m³/s) July 24 (gage height, 1.77 ft or 0.539 m).

Period of record: Maximum discharge, 140,000 ft³/s (3,960 m³/s) Oct. 16, 1942 (gage height, 26.9 ft or 8.20 m, present datum, from floodmarks), from rating curve extended above 76,000 ft³/s (2,150 m³/s) on basis of flow over dam and slope-area measurements at gage heights 26.1 ft (7.96 m) and 26.9 ft (8.20 m), present datum; minimum, 5 ft³/s (0.14 m³/s) Oct. 11, 12, 1930.

Flood in June 1889 was probably several feet lower than that of Oct. 16, 1942.

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 801: 1924(M). WSP 951: 1937(M). WSP 1302: 1907-12, 1913(M), 1916(M), 1918(M), 1920-21(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	535	1,830	650	4,880	2,250	1,190	3,650	815	902	927	392	634
2	1,020	1,500	607	3,930	2,060	1,210	2,520	768	3,010	1,100	303	525
3	5,330	1,210	585	3,110	2,000	1,210	2,120	795	7,940	627	284	1,480
4	2,790	1,040	576	3,570	2,080	1,230	1,910	987	3,630	519	319	3,970
5	1,650	971	707	3,580	1,900	1,150	2,670	903	2,390	464	316	2,270
6	1,180	1,190	2,030	2,860	1,730	1,110	3,310	866	1,810	428	661	1,350
7	939	1,210	1,830	2,580	1,790	1,150	2,570	902	1,470	448	465	5,920
8	833	963	1,230	2,350	1,910	1,250	2,200	871	1,320	484	357	4,830
9	861	922	3,580	2,290	1,750	1,160	4,730	894	1,240	450	364	2,430
10	892	994	6,190	3,170	1,650	1,090	3,850	1,460	1,120	403	557	1,620
11	826	960	3,200	4,530	1,610	1,070	2,700	1,180	965	435	818	2,050
12	757	856	2,300	4,450	1,580	1,180	2,290	1,230	824	444	543	2,450
13	717	809	1,890	3,410	1,530	1,380	2,090	9,850	749	379	408	1,940
14	678	780	2,030	2,820	1,540	1,290	2,030	4,620	704	331	365	1,180
15	638	760	1,850	2,610	1,520	1,140	1,930	2,800	667	305	360	894
16	596	745	1,520	2,510	1,400	1,100	1,750	2,190	703	294	326	765
17	579	724	1,500	2,360	1,380	1,230	1,530	1,920	1,540	280	350	699
18	562	685	1,460	2,140	1,390	1,200	1,430	1,550	1,470	268	389	632
19	547	664	1,400	1,980	1,300	1,070	1,370	1,340	810	254	504	601
20	546	667	1,530	1,920	1,330	1,090	1,290	1,420	651	250	430	561
21	542	662	16,400	3,040	1,340	1,920	1,220	1,260	593	240	450	535
22	541	661	22,600	9,220	1,240	3,700	1,160	1,070	665	230	417	515
23	506	667	7,040	6,540	1,730	2,160	1,170	1,010	873	220	630	696
24	499	639	5,030	3,560	1,620	1,660	1,240	1,130	1,490	216	990	670
25	489	627	3,910	3,940	1,370	1,450	1,110	1,130	1,090	222	661	657
26	485	635	4,030	3,910	1,310	1,290	1,030	1,020	764	[illegible]	[illegible]	[illegible]
27	475	629	15,000	3,760	1,190	1,210	979	976	2,200	305	1,260	[illegible]
28	466	656	[illegible]	3,550	1,150	1,170	933	970	1,440	367	1,350	[illegible]
29	916	726	5,570	3,050	------	1,160	920	823	1,070	337	686	707
30	[illegible]	727	4,420	2,720	------	[illegible]	869	771	902	326	975	[illegible]
31	[illegible]	------	3,710	2,460	------	7,110	------	863	------	367	791	------
TOTAL	35,303	26,040	133,635	104,760	[illegible]	40,100	[illegible]	[illegible]	44,932	12,350	17,320	[illegible]
MEAN	1,139	868	4,306	3,379	[illegible]	[illegible]	[illegible]	[illegible]	1,498	398	559	[illegible]
MAX	5,330	1,830	22,600	9,220	2,250	7,110	4,730	9,850	7,940	1,100	1,350	5,920
MIN	466	627	576	1,920	1,150	1,070	869	771	593	216	284	[illegible]
CFSM	.71	.54	2.70	2.12	1.00	[illegible]	[illegible]	[illegible]	.94	.25	.35	[illegible]
IN.	.82	.61	3.11	2.44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.29	.40	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, [illegible] FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	[illegible]	10.99	29,900	12-27	[illegible]	8.70	[illegible]

01668500 CAT POINT CREEK NEAR MONTROSS, VA.

LOCATION.--Lat 38°02'23", long 76°49'38", Richmond County, on right bank 200 ft or 61 m (revised) upstream from bridge on State Highway 637, 1.7 mi (2.7 km) west of Farmers Fork, 3.8 mi (6.1 km) south of Montross, and 11.4 mi (18.3 km) upstream from mouth.

DRAINAGE AREA.--45.6 mi² (118.1 km²).

PERIOD OF RECORD.--September 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2.93 ft (0.893 m) above mean sea level. Prior to Aug. 19, 1953, nonrecording gage near right bank at downstream side of highway bridge at same datum.

AVERAGE DISCHARGE.--31 years, 42.3 ft³/s or 1.198 m³/s (12.60 in/yr or 320 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,100 ft³/s (31.2 m³/s) Aug. 7 (gage height, 6.96 ft or 2.121 m); minimum, 2.5 ft³/s (0.071 m³/s) July 15, 16.

Period of record: Maximum discharge, 6,820 ft³/s (193 m³/s) Aug. 20, 1969 (gage height, 10.45 ft or 3.185 m), from rating curve extended above 1,400 ft³/s (39.6 m³/s); no flow at times in 1943, 1957, 1959, 1960, and 1966.

Flood in September 1935 exceeded 9.3 ft (2.83 m).

REMARKS.--Records good. Slight diurnal fluctuation at low flow caused by gristmill at Montross. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1382: 1944(M), 1945, 1946-51(M), 1952(P), 1953-54(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	18	15	102	40	30	155	32	25	19	26	11
2	65	15	14	96	39	30	104	30	37	50	21	9.9
3	134	14	14	71	40	30	85	62	77	40	43	11
4	71	13	15	85	43	30	85	74	66	26	45	33
5	39	24	18	86	38	29	90	56	43	15	44	39
6	24	30	29	70	37	28	82	52	30	11	35	64
7	16	27	22	62	50	30	71	50	25	10	626	293
8	14	23	21	52	52	29	68	44	26	8.6	498	289
9	12	28	91	62	47	28	110	43	25	7.4	144	106
10	11	27	94	68	43	27	119	49	22	6.2	449	63
11	9.9	24	64	64	41	26	86	48	18	6.0	272	60
12	9.7	21	43	56	39	41	75	44	15	5.2	86	170
13	9.2	19	39	46	40	40	71	62	13	4.4	55	94
14	8.5	18	46	42	39	33	69	60	12	3.5	43	58
15	8.3	17	42	41	37	30	74	48	10	2.8	35	44
16	8.0	17	44	40	35	49	71	36	9.2	7.7	30	37
17	7.8	15	55	39	43	121	62	30	8.6	5.6	31	33
18	7.2	15	56	36	40	91	58	26	7.4	3.8	48	30
19	6.7	20	48	35	39	64	54	24	6.9	6.0	49	29
20	6.7	30	46	34	38	58	52	24	6.7	5.2	41	24
21	6.6	19	300	68	30	86	48	23	6.6	4.0	31	26
22	6.2	18	404	65	37	125	47	20	6.9	3.5	27	22
23	6.7	17	116	56	42	90	60	22	7.0	2.9	24	20
24	7.3	17	76	63	43	70	56	26	13	2.9	23	18
25	7.6	17	62	57	37	60	48	22	24	3.1	22	17
26	7.5	16	56	94	33	56	46	19	10	11	20	16
27	7.5	17	56	62	31	52	42	30	9.5	96	22	15
28	7.5	18	49	56	34	48	40	24	52	80	18	38
29	13	17	46	57	—	52	36	29	16	43	16	82
30	15	16	41	49	—	160	35	26	15	52	16	97
31	15	—	49	66	—	272	—	26	—	59	13	—
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	134	30	300	102	52	272	155	74	77	80	626	293
MIN	6.2	13	14	34	30	26	35	19	6.6	2.8	13	9.9
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, [illegible] FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]				

01668800 HOSKINS CREEK NEAR TAPPAHANNOCK, VA.

LOCATION.--Lat 37°55'38", long 76°57'16", Essex County, at bridge on State Highway 717, 0.4 mi (0.6 km) upstream from Criddlin Swamp, 2.9 mi (4.7 km) downstream from site of Hutchinson Mill Pond (destroyed by flood of August 1969), and 5.0 mi (8.0 km) west of Tappahannock.

DRAINAGE AREA.--15.5 mi² (40.1 km²).

PERIOD OF RECORD.--October 1964 to September 1969, June 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 34.30 ft (10.455 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 15.3 ft³/s or 0.433 m³/s (13.40 in/yr or 340 mm/yr).

EXTREMES.--Current year: Maximum discharge, 126 ft³/s (3.57 m³/s) Aug. 7 (gage height, 4.33 ft or 1.320 m); minimum, 1.7 ft³/s (0.048 m³/s) July 15.

Period of record: Maximum discharge, 1,380 ft³/s (39.1 m³/s) Aug. 20, 1969 (gage height, 10.23 ft or 3.118 m), from rating curve extended above 100 ft³/s (2.83 m³/s) on basis of velocity-area study; minimum, 0.20 ft³/s (0.006 m³/s) Sept. 12, 13, 1966.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	12	7.4	46	18	14	43	12	12	9.6	6.4	4.5
2	42	10	7.1	35	17	13	34	12	23	38	5.7	4.2
3	80	9.1	7.3	26	19	13	29	34	35	29	14	7.6
4	36	8.2	6.9	36	23	13	35	32	25	18	13	32
5	16	14	8.2	32	19	12	40	21	13	7.3	13	22
6	9.8	17	13	25	17	12	33	27	8.2	5.7	7.8	37
7	7.8	14	16	23	26	13	26	25	7.4	5.0	91	102
8	7.6	11	9.6	22	25	12	26	20	11	4.7	61	67
9	7.8	13	53	31	21	11	56	18	12	4.0	34	36
10	7.8	12	38	32	18	11	44	24	9.3	3.5	19	22
11	7.4	10	22	26	18	11	32	21	7.3	3.2	12	16
12	7.3	9.3	16	24	18	25	29	20	6.0	2.8	8.5	14
13	7.3	8.7	15	26	19	20	27	31	5.6	2.3	7.3	12
14	7.3	8.2	21	19	17	14	27	22	5.3	2.1	6.4	11
15	7.3	8.7	16	19	16	12	26	15	5.4	2.0	5.6	8.9
16	7.1	8.5	18	19	16	27	23	12	5.2	10	5.3	7.8
17	6.9	8.2	24	18	22	54	22	10	5.2	12	5.2	7.4
18	7.1	7.8	20	18	18	32	21	8.5	4.6	7.8	7.3	7.3
19	7.3	8.5	16	18	17	23	20	8.2	4.4	5.7	6.7	6.9
20	7.4	8.7	19	17	16	22	19	9.6	4.1	3.9	5.7	6.2
21	7.4	8.9	78	27	14	33	18	8.7	4.0	2.9	5.0	6.2
22	7.4	8.5	65	34	17	43	18	8.2	4.2	2.3	4.6	5.7
23	7.4	8.2	37	29	20	29	30	8.5	7.6	2.3	4.5	5.6
24	7.4	8.2	28	[illegible]	17	23	27	12	18	2.8	9.6	5.4
25	7.3	9.1	25	30	15	20	22	12	24	3.3	31	5.3
26	7.3	9.1	25	[illegible]	14	18	18	9.1	13	7.8	13	5.3
27	9.3	9.1	24	[illegible]	16	19	17	19	9.6	49	10	5.3
28	7.3	9.1	26	[illegible]	16	17	16	20	11	22	7.8	11
29	12	9.1	18	[illegible]	------	21	15	14	15	8.2	6.2	18
30	12	8.0	16	[illegible]	------	56	14	11	13	9.6	5.3	12
31	11	------	22	[illegible]	------	71	------	11	------	11	4.7	------
TOTAL	[illegible]	294.2	[illegible]	[illegible]	509	713	807	515.8	328.4	297.8	436.6	511.6
MEAN	12.5	9.81	[illegible]	26.1	18.2	23.0	26.9	16.6	10.9	9.61	14.1	17.1
MAX	80	17	78	46	26	71	56	34	35	49	91	102
MIN	6.0	7.8	6.9	17	14	11	14	8.2	4.0	2.0	4.5	4.2
CFSM	.81	.63	[illegible]	[illegible]	1.17	1.48	1.74	1.07	.71	.62	.91	1.10
IN.	[illegible]	.71	[illegible]	[illegible]	1.22	1.71	1.94	1.24	.79	.71	1.05	1.23

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX 102 MIN 2.0 CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, 60 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	8- 7	[illegible]	4.33	126
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]				

01669000 PISCATAWAY CREEK NEAR TAPPAHANNOCK, VA.

LOCATION.--Lat 37°52'37", long 76°54'03", Essex County, on right bank at upstream side of bridge on State Highway 691, 0.6 mi (1.0 km) south of Henley Fork, 2.3 mi (3.7 km) downstream from Sturgeon Swamp, and 4.2 mi (6.8 km) southwest of Tappahannock.

DRAINAGE AREA.--28.0 mi² (72.5 km²).

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2.50 ft (0.762 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 31.3 ft³/s or 0.886 m³/s (15.18 in/yr or 386 mm/yr).

EXTREMES.--Current year: Maximum discharge, 350 ft³/s (9.91 m³/s) Aug. 7 (gage height, 4.41 ft or 1.344 m); minimum, 2.8 ft³/s (0.079 m³/s) July 25.

Period of record: Maximum discharge, 2,380 ft³/s (67.4 m³/s) Aug. 20, 1969 (gage height, 7.52 ft or 2.292 m); minimum, 0.01 ft³/s (<0.001 m³/s) Oct. 2, 1954 (gage height, 0.33 ft or 0.101 m).

REMARKS.--Records good except those prior to April, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	14	16	74	48	42	83	30	23	14	8.6	7.6
2	34	13	14	64	47	42	70	28	28	59	6.0	7.2
3	127	12	12	55	49	41	62	62	42	46	10	10
4	40	11	10	64	52	43	70	64	30	18	15	48
5	20	21	12	63	49	40	85	37	22	11	12	38
6	15	26	21	56	48	38	75	50	17	11	8.5	45
7	13	20	18	55	55	40	65	47	16	11	196	199
8	13	17	17	54	55	39	63	35	19	11	185	120
9	13	20	103	58	52	37	112	35	22	9.0	48	54
10	13	22	63	62	50	36	94	42	18	7.4	29	36
11	12	20	45	55	50	35	70	36	15	6.1	22	41
12	12	19	42	52	45	67	66	36	12	5.2	17	38
13	12	17	44	50	50	54	64	54	12	4.5	15	30
14	11	20	51	47	48	38	63	40	13	3.9	14	24
15	10	18	49	47	47	34	62	30	12	4.0	12	21
16	9.8	20	51	47	47	55	55	28	11	8.6	11	20
17	9.5	20	58	46	53	125	92	26	11	14	11	19
18	9.5	20	52	44	50	70	50	23	9.6	8.0	19	18
19	9.5	18	47	44	47	50	47	22	8.8	5.6	19	18
20	9.8	20	52	44	47	47	46	23	8.0	4.7	13	17
21	10	20	65	92	45	60	44	23	7.7	3.9	11	16
22	9.8	19	60	63	47	91	44	21	7.7	3.4	9.8	15
23	10	20	56	52	51	63	65	21	8.3	3.3	9.3	14
24	10	21	50	48	46	52	65	27	14	4.4	10	14
25	10	19	47	54	44	44	47	24	22	3.0	46	13
26	11	26	47	57	42	40	42	20	16	9.5	32	14
27	10	19	67	63	42	42	40	29	11	36	18	13
28	10	20	45	58	42	39	38	40	13	32	14	24
29	12	20	45	58	------	40	36	26	10	13	12	61
30	17	17	45	56	------	69	32	22	10	11	10	26
31	15	------	56	91	------	144	------	23	------	12	9.8	------
TOTAL	526.0	589	1,356	1,691	1,352	1,692	1,807	1,023	480.1	389.5	852.0	990.8
MEAN	17.0	19.6	43.8	54.5	48.3	54.6	60.2	33.0	16.0	12.6	27.5	33.0
MAX	127	26	103	92	55	144	112	64	42	59	196	199
MIN	8.1	11	10	44	42	34	32	20	7.7	3.0	6.0	7.2
CFSM	.61	.70	1.56	1.95	1.72	1.95	2.15	1.18	.57	.45	.98	1.18
IN.	.70	.78	1.80	2.25	1.80	2.25	2.40	1.36	.64	.52	1.13	1.32

CAL YR 1973 TOTAL 11,966.6 MEAN 32.7 MAX 215 MIN 3.9 CFSM 1.17 IN 15.87
WTR YR 1974 TOTAL 12,737.6 MEAN 34.9 MAX 199 MIN 3.0 CFSM 1.25 IN 16.92

PEAK DISCHARGE (BASE, 200 FT³/S).--AUG. 7 (2200) 350 FT³/S (4.41 FT).

01669500 DRAGON SWAMP NEAR CHURCH VIEW, VA.

LOCATION.--Lat 37°41'05", long 76°43'37", Middlesex County, on left bank at downstream side of bridge on State Highway 602, 0.9 mi (1.4 km) upstream from Briery Swamp, 1.8 mi (2.9 km) downstream from Tim Branch Swamp, 2.6 mi (4.2 km) west of Church View, and 2.9 mi (4.7 km) east of Dragonville.

DRAINAGE AREA.--84.9 mi² (219.9 km²).

PERIOD OF RECORD.--August 1943 to current year. Prior to October 1965, published as Dragon Run near Church View.

GAGE.--Water-stage recorder. Datum of gage is 34.00 ft (10.363 m) above mean sea level. Prior to July 18, 1966, at site 400 ft (122 m) downstream at same datum.

AVERAGE DISCHARGE.--31 years, 81.2 ft³/s or 2.300 m³/s (12.99 in/yr or 330 mm/yr).

EXTREMES.--Current year: Maximum discharge, 490 ft³/s (13.9 m³/s) Apr. 1 (gage height, 5.75 ft or 1.753 m); minimum, 0.64 ft³/s (0.018 m³/s) July 23, 24.

Period of record: Maximum discharge, 3,990 ft³/s (113 m³/s) June 4, 1963 (gage height, 10.00 ft or 3.048 m); no flow many days in 1954, 1955, 1957, 1959, and 1966.

Flood in September 1935 reached a stage of about 17 ft (5.2 m), from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PEP SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	29	40	99	123	70	484	50	38	17	13	21
2	14	30	38	113	107	63	418	45	38	21	11	16
3	22	30	38	137	102	62	275	50	47	21	8.3	15
4	29	31	37	209	107	60	200	63	46	18	7.3	35
5	38	32	36	218	104	55	171	72	42	16	8.5	41
6	47	37	35	180	99	54	184	93	39	15	9.4	50
7	46	39	34	163	107	54	171	107	36	14	18	188
8	38	38	34	144	113	54	163	99	35	11	32	245
9	31	39	73	137	123	52	159	83	34	9.2	60	290
10	25	42	142	151	119	51	151	83	32	7.3	104	255
11	21	43	159	148	113	93	144	72	28	5.9	81	176
12	18	42	144	148	102	65	133	72	25	4.6	62	110
13	15	41	113	133	96	86	126	86	22	3.5	44	63
14	14	41	104	110	93	88	113	79	19	2.7	31	41
15	12	40	93	96	93	81	102	68	17	2.3	27	30
16	12	40	90	86	98	77	126	58	16	2.5	21	24
17	11	40	113	79	110	137	126	50	16	2.0	22	20
18	10	39	113	72	116	171	104	45	16	1.4	63	18
19	10	39	99	66	116	200	90	39	16	1.0	48	16
20	9.8	39	102	63	116	188	81	35	16	1.0	41	15
21	9.8	39	163	66	102	191	72	32	15	.92	35	14
22	10	39	266	104	90	144	66	29	14	.80	30	13
23	12	38	276	110	90	126	68	27	13	.68	23	14
24	13	38	255	110	110	116	77	26	14	.68	19	12
25	14	38	188	110	110	110	77	27	19	.76	17	11
26	16	38	133	110	102	98	77	29	17	.92	15	11
27	16	38	102	130	98	79	77	30	17	9.2	15	10
28	17	40	85	133	79	83	75	30	18	8.2	19	10
29	[illegible]	42	79	151	------	66	66	41	21	9.6	22	10
30	[illegible]	41	70	150	------	150	61	40	18	12	26	10
31	[illegible]	------	74	137	------	191	------	50	------	14	28	------
TOTAL	613.0	1,143	[illegible]	[illegible]	[illegible]	[illegible]	4,233	1,707	[illegible]	229.96	956.5	1,793
MEAN	19.8	38.1	107	[illegible]	[illegible]	[illegible]	[illegible]	55.1	[illegible]	7.42	30.9	59.8
MAX	47	43	276	218	123	200	484	107	47	21	104	290
MIN	9.8	29	34	63	79	51	61	26	13	.68	7.3	10
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, [illegible] FT³/S).--NO PEAK ABOVE BASE.

01670000 BEAVERDAM SWAMP NEAR ARK, VA.

LOCATION.--Lat 37°28'14", long 76°33'48", Gloucester County, on right bank 300 ft (91 m) downstream from bridge on State Highway 606, 1.4 mi (2.3 km) upstream from Beech Swamp, 2.3 mi (3.7 km) north of Ark, and 4.3 mi (6.9 km) northwest of Gloucester.

DRAINAGE AREA.--6.63 mi² (17.17 km²).

PERIOD OF RECORD.--October 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 36.43 ft (11.104 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 6.83 ft³/s or 0.193 m³/s (13.99 in/yr or 355 mm/yr).

EXTREMES.--Current year: Maximum discharge, 137 ft³/s (3.88 m³/s) June 24 (gage height, 3.93 ft or 1.198 m); minimum, 0.95 ft³/s (0.027 m³/s) July 15, 24.
Period of record: Maximum discharge, 570 ft³/s (16.1 m³/s) Sept. 12, 1960 (gage height, 5.88 ft or 1.792 m), from rating curve extended above 130 ft³/s (3.68 m³/s); no flow July 30 to Aug. 2, 1953.

REMARKS.--Records fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1502: 1950, 1951-52(M). WRD Va. 1971: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.0	2.6	22	8.6	3.1	17	5.0	2.8	4.1	2.4	2.8
2	21	3.8	2.6	14	8.0	2.9	14	4.9	2.8	3.3	3.1	2.8
3	25	3.4	2.6	16	9.4	2.8	12	9.1	4.4	2.8	3.1	3.0
4	4.1	3.2	2.6	33	12	2.6	12	8.2	3.9	2.5	4.0	13
5	3.0	4.8	2.7	22	9.6	2.8	15	6.4	2.9	2.1	7.2	9.3
6	2.2	5.4	2.8	16	8.2	2.8	20	9.6	2.4	5.7	4.4	29
7	2.0	4.1	2.8	13	9.4	2.8	16	10	2.2	4.8	6.1	66
8	2.0	3.5	3.2	13	10	2.6	13	7.7	3.4	3.4	6.2	30
9	2.1	3.5	7.3	16	9.5	2.4	14	8.3	3.7	2.4	17	16
10	2.1	3.5	4.8	17	8.5	2.6	13	12	2.8	2.1	54	18
11	2.0	3.6	2.6	14	7.8	2.7	11	7.8	2.2	2.0	19	7.7
12	1.9	3.3	3.5	14	6.8	5.6	11	6.7	1.9	1.5	9.1	6.5
13	1.9	3.3	3.4	11	5.9	5.3	11	7.2	3.7	1.2	5.3	6.0
14	1.9	3.3	4.3	11	6.1	3.6	11	6.0	4.8	1.2	4.8	5.0
15	1.8	3.3	4.2	11	5.1	3.0	10	4.9	2.7	1.1	6.8	4.6
16	1.8	3.4	4.9	11	5.0	7.2	9.1	4.4	2.4	2.1	4.6	4.6
17	1.7	3.6	6.8	30	15	27	8.6	5.7	6.4	5.9	8.0	4.4
18	1.8	3.0	5.7	9.6	7.6	19	8.2	5.2	4.6	2.3	40	4.4
19	1.8	3.1	5.1	9.6	6.3	12	7.8	2.9	2.6	1.8	13	5.9
20	1.9	3.2	5.5	9.4	6.1	12	7.3	3.0	2.0	1.9	7.2	5.9
21	1.9	3.2	13	10	5.1	13	7.4	2.8	1.6	1.9	5.3	4.8
22	1.8	3.2	11	12	5.8	13	7.2	2.6	1.7	1.8	5.7	3.9
23	1.9	3.3	9.6	10	4.6	11	9.3	2.6	23	1.2	5.8	5.1
24	2.0	3.6	7.8	9.1	3.8	10	9.4	3.0	79	1.1	5.5	4.8
25	2.3	3.0	6.9	37	3.7	9.3	7.8	3.0	30	1.3	5.0	5.7
26	2.6	2.9	7.0	11	3.7	6.9	7.1	2.7	7.0	16	4.9	3.4
27	2.6	2.9	7.6	13	3.2	5.1	6.7	2.6	5.0	[illegible]	4.6	3.3
28	[illegible]	2.8	7.3	10	3.9	4.6	6.6	2.2	7.6	[illegible]	5.1	3.3
29	3.0	2.8	7.8	16	------	13	6.2	4.9	4.3	9.7	5.1	4.6
30	4.5	2.5	9.4	12	------	30	5.7	3.5	5.0	3.2	3.7	4.9
31	6.0	------	13	9.6	------	[illegible]	------	3.0	------	2.8	3.1	------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	25	5.4	13	37	15	[illegible]	20	12	79	[illegible]	[illegible]	66
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, 60 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-24	[illegible]	3.93	137	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

01671000 NORTH ANNA RIVER NEAR DOSWELL, VA.

LOCATION.--Lat 37°53'15", long 77°29'15", Caroline County, on left bank 1.5 mi (2.4 km) upstream from bridge on U.S. Highway 1, 2.5 mi (4.0 km) northwest of Doswell, and 4.4 mi (7.1 km) upstream from Bull Run.

DRAINAGE AREA.--441 mi² (1,142 km²).

PERIOD OF RECORD.--March 1926 to current year. Published as "near Hewlett", 1926-28. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 55.66 ft (16.965 m) above mean sea level. Mar. 23, 1926, to Aug. 11, 1928, nonrecording gage at site 10.2 mi (16.4 km) upstream at different datum. Mar. 17, 1929, to Nov. 7, 1930, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--48 years, 380 ft³/s or 10.76 m³/s (11.70 in/yr or 297 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,180 ft³/s (175 m³/s) Sept. 7 (gage height, 15.28 ft or 4.657 m); minimum, 50 ft³/s (1.42 m³/s) July 15, 24.

Period of record: Maximum discharge, 24,800 ft³/s (702 m³/s) Aug. 21, 1969 (gage height, 32.60 ft or 9.936 m); maximum gage height, 33.7 ft (10.27 m) Aug. 12, 1928, from floodmarks, present site and datum; minimum discharge, 1.0 ft³/s (0.028 m³/s) Sept. 30, Oct. 1, 2, 1932.

REMARKS.--Records good. Flow regulated since January 1972 by Lake Anna (capacity, 373,000 acre-ft or 460 hm³), 20.5 mi (33.0 km) upstream. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1171: 1943. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	79	139	978	225	151	1,130	254	584	104	145	66
2	557	74	98	910	422	167	544	246	1,440	94	85	65
3	2,620	71	95	837	427	311	783	252	2,360	91	79	88
4	2,160	70	94	875	434	309	635	551	727	76	190	1,770
5	385	80	102	840	419	280	1,100	347	227	63	268	713
6	314	96	661	799	419	281	1,250	219	126	61	404	367
7	292	149	622	780	355	285	501	212	114	65	146	5,360
8	166	216	593	743	590	288	411	195	218	64	128	3,030
9	140	264	1,100	563	818	283	2,260	173	274	60	73	662
10	91	484	932	867	622	279	799	391	268	59	372	159
11	91	415	940	692	269	280	561	651	184	61	219	258
12	88	228	1,640	200	245	383	497	711	170	58	139	709
13	86	220	359	171	249	791	478	2,100	126	55	94	156
14	85	167	351	153	273	563	415	1,080	103	52	67	103
15	84	163	323	147	374	310	474	403	98	51	72	95
16	82	163	327	183	370	319	488	151	76	61	71	120
17	80	161	404	381	386	542	325	202	244	59	69	121
18	79	122	792	254	382	522	298	186	160	68	67	121
19	78	97	795	212	375	443	293	206	127	67	63	96
20	77	91	814	214	376	416	288	746	99	57	63	89
21	76	85	2,610	391	359	901	282	331	77	55	61	89
22	76	85	3,360	1,160	301	2,340	281	169	72	53	63	87
23	66	85	3,120	1,700	391	865	321	122	179	51	81	86
24	57	86	3,220	760	518	569	435	125	357	52	239	85
25	57	86	4,300	347	500	483	386	163	116	52	287	82
26	57	86	1,080	403	453	415	136	264	101	94	76	81
27	57	128	1,350	794	160	165	115	138	191	349	468	80
28	57	190	2,160	692	149	263	113	137	518	606	107	82
29	69	460	1,770	462	------	434	156	130	398	110	70	88
30	94	481	379	475	------	766	254	131	187	897	89	94
31	82	------	529	257	------	2,210	------	273	------	307	68	------
TOTAL	8,384	5,182	35,059	18,240	10,861	16,612	16,009	11,259	9,921	3,952	4,423	15,002
MEAN	270	173	1,131	588	388	536	534	363	331	127	143	500
MAX	2,620	484	4,300	1,700	818	2,340	2,260	2,100	2,360	897	468	5,360
MIN	57	70	94	147	149	151	113	122	72	51	61	65
CFSM	.61	.39	2.56	1.33	.88	1.22	1.21	.82	.75	.29	.32	1.13
IN	.71	.44	2.96	1.54	.92	1.40	1.35	.95	.84	.33	.37	1.27

CAL YR 1973 TOTAL 216,056 MEAN 592 MAX 7,010 MIN 45 CFSM 1.34 IN 18.23
WTR YR 1974 TOTAL 154,904 MEAN 424 MAX 5,360 MIN 51 CFSM .96 IN 13.07

01671100 LITTLE RIVER NEAR DOSWELL, VA.

LOCATION.--Lat 37°52'21", long 77°30'48", Hanover County, on left bank at downstream side of bridge on State Highway 685, 0.8 mi (1.3 km) southwest of Verdon, 2.9 mi (4.7 km) west of Doswell, and 9.6 mi (15.4 km) upstream from mouth.

DRAINAGE AREA.--107 mi² (277 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 132.30 ft (40.325 m) above mean sea level (levels by La Prade Bros., Engineers).

AVERAGE DISCHARGE.--13 years, 95.9 ft³/s or 2.716 m³/s (12.17 in/yr or 309 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,610 ft³/s (73.9 m³/s) Dec. 22 (gage height, 6.50 ft or 1.981 m); minimum, 8.8 ft³/s (0.25 m³/s) Oct. 2.

Period of record: Maximum discharge, 12,000 ft³/s (340 m³/s) Aug. 21, 1969 (gage height, 11.09 ft or 3.380 m), from rating curve extended above 7,600 ft³/s (215 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Sept. 25, 26, 1968.

REMARKS.--Records good. Frequent quarry dewatering by the General Crushed Stone Co. above gage adds about 0.5 ft³/s (0.014 m³/s) at times.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WRD Va. 1970: 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	39	57	326	116	112	268	56	52	45	56	19
2	45	34	42	394	104	112	183	52	69	36	46	16
3	116	32	35	282	100	110	148	85	145	31	36	23
4	237	29	31	258	102	104	138	116	135	28	30	62
5	140	32	31	234	100	99	140	97	95	25	29	168
6	54	48	72	191	99	97	162	93	65	22	29	236
7	34	51	172	160	130	100	135	95	53	20	42	842
8	30	45	112	142	170	102	122	85	50	22	41	1,620
9	26	44	192	160	152	100	448	93	47	19	39	702
10	25	45	374	254	130	89	590	211	45	18	32	200
11	25	40	264	254	126	82	300	247	41	18	28	108
12	24	36	110	218	126	132	186	162	36	17	25	83
13	22	32	76	191	128	191	152	186	32	16	22	65
14	19	31	97	162	130	180	140	278	30	15	19	54
15	17	31	99	148	128	145	150	211	30	13	19	45
16	17	30	95	148	128	142	128	120	30	12	20	38
17	16	29	87	142	148	272	116	89	30	11	19	35
18	14	28	91	135	160	244	106	72	29	9.8	15	33
19	14	28	95	128	158	145	95	66	29	11	15	30
20	15	29	99	120	142	122	89	80	30	12	15	29
21	15	30	552	122	118	170	83	65	28	13	15	29
22	15	30	2,040	180	110	490	80	58	27	11	15	26
23	16	30	1,300	218	122	417	83	56	36	10	29	25
24	16	30	313	175	130	200	83	58	140	9.8	30	23
25	17	30	180	175	128	145	80	56	93	10	23	23
26	17	31	165	197	124	120	72	51	54	15	19	23
27	17	32	208	264	120	106	68	53	54	54	22	22
28	16	35	247	268	116	160	65	57	57	72	106	21
29	24	44	197	202	------	99	62	58	53	87	52	21
30	46	64	150	170	------	158	59	53	50	87	28	21
31	45	------	145	135	------	310	------	51	------	72	21	------
TOTAL	1,144	1,069	7,728	6,153	3,545	4,995	4,531	3,110	1,665	841.6	937	4,642
MEAN	36.9	35.6	249	198	127	161	151	100	55.5	27.1	30.2	155
MAX	237	64	2,040	394	170	490	590	278	145	87	106	1,620
MIN	10	28	31	120	99	82	59	51	27	9.8	15	16
CFSM	.34	.33	2.33	1.85	1.19	1.50	1.41	.93	.52	.25	.28	1.45
IN	.40	.37	2.69	2.14	1.23	1.74	1.58	1.08	.58	.29	.33	1.61

CAL YR 1973 TOTAL 49,046.8 MEAN 134 MAX 2,040 MIN 7.6 CFSM 1.25 IN 17.05
WTR YR 1974 TOTAL 40,360.6 MEAN 111 MAX 2,040 MIN 9.8 CFSM 1.04 IN 14.03

PEAK DISCHARGE (BASE, 650 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1630	6.50	2,610	9- 8	0730	5.87	1,840

01671500 BUNCH CREEK NEAR BOSWELLS TAVERN, VA.

LOCATION.--Lat 38°01'54", long 78°11'30", Louisa County, on right bank at upstream side of bridge on U.S. Highway 15, 2.7 mi (4.3 km) south of Boswells Tavern, 4.8 mi (7.7 km) north of Zion Crossroads, 5.0 mi (8.0 km) upstream from mouth, and 10 mi (16 km) west of Louisa.

DRAINAGE AREA.--4.37 mi^2 (11.32 km^2).

PERIOD OF RECORD.--October 1948 to current year. Prior to October 1967, published as Hudson Creek near Boswells Tavern.

GAGE.--Water-stage recorder. Datum of gage is 377.14 ft (114.952 m) above mean sea level.

AVERAGE DISCHARGE.--26 years, 4.51 ft^3/s or 0.128 m^3/s (14.02 in/yr or 356 mm/yr).

EXTREMES.--Current year: Maximum discharge, 251 ft^3/s (7.11 m^3/s) Dec. 21 (gage height, 3.61 ft or 1.100 m); minimum, 0.29 ft^3/s (0.008 m^3/s) July 22, 23 (gage height, 0.42 ft or 0.128 m).

Period of record: Maximum discharge, 2,750 ft^3/s (77.9 m^3/s) Aug. 20, 1969 (gage height, 10.64 ft or 3.243 m), from rating curve extended above 340 ft^3/s (9.62 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times in most years.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WRD Va. 1970: Drainage area. WRD Va. 1973: 1972.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	2.0	1.5	12	3.8	3.4	6.1	2.4	13	1.7	.90	1.0
2	28	1.7	1.4	6.4	3.8	3.2	5.6	2.4	24	1.2	14	1.1
3	4.7	1.3	1.3	5.3	4.0	3.2	4.7	4.7	9.8	1.1	5.3	9.4
4	1.9	1.1	1.3	9.1	4.7	3.2	15	2.9	4.0	1.0	6.9	14
5	1.1	6.6	19	6.1	3.2	3.1	15	2.7	2.8	1.0	7.5	2.4
6	.74	3.4	8.4	4.9	3.4	3.1	7.5	4.0	2.6	1.2	2.4	17
7	.60	2.2	3.2	4.5	7.5	4.5	5.3	2.9	2.4	2.3	2.0	52
8	2.6	1.8	2.7	3.8	5.3	3.8	7.0	2.7	2.7	1.5	2.3	7.8
9	1.7	2.3	29	10	4.7	3.2	14	12	2.6	1.1	3.2	3.8
10	1.2	2.0	7.8	7.5	4.2	2.9	7.0	5.6	2.2	.80	3.4	2.8
11	1.1	1.7	4.2	9.5	4.2	4.9	5.3	3.2	1.8	.74	2.2	14
12	1.0	1.4	2.9	7.3	4.5	13	4.7	28	1.7	.67	1.7	4.0
13	.90	1.4	5.0	4.9	4.5	7.5	4.7	21	1.5	.60	1.4	2.6
14	.80	1.4	7.5	4.5	4.0	5.1	5.1	6.4	1.7	.47	1.2	2.2
15	.74	1.4	3.8	4.5	3.6	3.8	8.1	4.2	2.0	.60	1.1	1.9
16	.74	1.4	3.6	4.5	3.8	4.2	4.9	3.1	6.4	.67	1.0	1.7
17	.67	1.3	4.9	4.0	5.1	4.2	4.2	3.1	2.9	.47	1.0	1.7
18	.60	1.3	4.5	3.6	4.2	3.1	4.0	6.6	2.0	.67	.90	1.7
19	.54	1.3	3.8	3.6	4.2	4.2	3.8	3.1	1.7	.40	.90	1.5
20	.54	1.4	24	3.8	4.5	10	3.4	2.8	1.5	.34	1.0	1.4
21	.60	1.4	116	29	3.6	33	3.4	2.6	1.5	.34	1.0	1.4
22	.60	1.5	14	13	12	13	3.2	2.4	2.2	.34	6.8	1.3
23	.60	1.4	9.5	7.3	7.5	7.0	4.9	2.4	2.7	.34	2.9	1.2
24	.67	1.5	7.5	6.1	4.9	5.6	3.6	2.4	2.6	.67	1.7	1.0
25	.74	1.5	7.0	8.1	4.7	4.5	3.4	2.0	2.2	1.1	1.2	1.0
26	.74	1.5	34	9.2	4.0	4.0	3.1	1.8	2.8	6.6	1.5	1.0
27	.74	1.9	25	8.4	3.6	3.8	2.9	2.0	5.0	16	1.5	1.0
28	.80	2.0	9.5	6.1	3.6	3.8	2.8	2.0	3.8	2.3	1.3	2.3
29	6.2	2.7	6.4	5.9	------	4.0	2.7	1.9	2.8	1.3	1.2	2.3
30	2.4	1.9	5.9	4.9	------	16	2.6	2.4	2.0	1.9	1.0	1.5
31	2.2	------	9.1	4.2	------	10	------	2.7	------	1.3	1.0	------
TOTAL	66.93	55.7	383.7	222.0	131.1	198.3	168.0	148.4	116.9	50.52	81.40	158.0
MEAN	2.16	1.86	12.4	7.16	4.68	6.40	5.60	4.79	3.90	1.63	2.63	5.27
MAX	28	6.6	116	29	12	33	15	28	24	16	14	52
MIN	.47	1.1	1.3	3.6	3.2	2.9	2.6	1.8	1.5	.34	.90	1.0
CFSM	.49	.43	2.84	1.64	1.07	1.46	1.28	1.10	.89	.37	.60	1.21
IN	.57	.47	3.27	1.89	1.12	1.69	1.43	1.26	1.00	.43	.69	1.34

CAL YR 1973 TOTAL 2,260.11 MEAN 6.19 MAX 129 MIN .17 CFSM 1.42 IN 19.24
WTR YR 1974 TOTAL 1,780.95 MEAN 4.88 MAX 116 MIN .34 CFSM 1.12 IN 15.16

PEAK DISCHARGE (BASE, 160 FT^3/S).--DEC. 21 (0700) 251 FT^3/S (3.61 FT).

01672500 SOUTH ANNA RIVER NEAR ASHLAND, VA.

LOCATION.--Lat 37°47'48", long 77°32'57", Hanover County, on right bank at downstream side of bridge on State Highway 54, 4.5 mi (7.2 km) northwest of Ashland, and 7.6 mi (12.2 km) upstream from Newfound River.

DRAINAGE AREA.--394 mi² (1,020 km²).

PERIOD OF RECORD.--October 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 83.74 ft (25.524 m) above mean sea level.

AVERAGE DISCHARGE.--44 years, 359 ft³/s or 10.17 m³/s (12.37 in/yr or 314 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,830 ft³/s (108 m³/s) Dec. 22 (gage height, 12.00 ft or 3.658 m); minimum, 40 ft³/s (1.13 m³/s) Oct. 1; minimum gage height, 1.65 ft (0.503 m) July 23, 24.

Period of record: Maximum discharge, 17,100 ft³/s (484 m³/s) Aug. 23, 1969 (gage height, 24.99 ft or 7.617 m); minimum, 0.10 ft³/s (0.003 m³/s) Sept. 12, 1966, caused by diversion above station.

Flood of Aug. 15, 1928, reached a stage of about 24 ft or 7.3 m (discharge, about 14,500 ft³/s or 411 m³/s).

REMARKS.--Records good. Diversion 150 ft (46 m) above station since September 1966 for town of Ashland water supply has averaged less than 400,000 gal (1,510 m³) per day, equivalent to a mean discharge of less than 0.6 ft³/s (0.017 m³/s) at the station. Capacity of the diversion pickup is 1,000,000 gal (3,780 m³) per day, equivalent to about 1.5 ft³/s (0.042 m³/s). Small diurnal fluctuation at low flow in some years caused by gristmills above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 801: 1935(M). WSP 1502: 1935, 1939. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	180	138	1,340	400	297	1,330	188	188	194	210	88
2	115	142	126	1,280	361	293	680	176	375	154	136	84
3	1,230	129	116	749	348	286	618	351	758	134	111	111
4	1,740	118	109	762	356	280	609	354	807	118	184	529
5	723	130	112	806	349	276	711	266	434	105	210	674
6	197	170	440	656	325	269	993	300	277	97	287	833
7	133	265	847	533	487	280	755	310	214	93	277	2,880
8	115	201	414	469	557	295	551	268	190	90	174	2,480
9	133	167	679	543	502	292	1,730	402	183	90	141	2,220
10	173	164	1,410	886	427	267	1,620	797	174	90	128	823
11	134	166	1,140	791	401	254	835	632	154	89	171	378
12	110	149	503	700	397	436	601	425	138	86	238	311
13	96	131	353	619	415	717	515	839	137	82	147	335
14	87	124	421	462	426	651	493	1,460	130	81	122	233
15	79	121	627	404	387	485	572	640	124	75	127	184
16	73	118	444	381	352	587	500	384	122	68	100	158
17	70	114	388	359	418	793	410	288	165	65	91	145
18	66	111	388	332	454	627	360	236	265	61	85	135
19	64	107	367	306	424	461	332	223	174	67	78	126
20	63	105	399	294	396	415	310	227	138	60	75	122
21	65	108	2,450	343	370	697	290	208	123	52	70	117
22	65	109	3,640	789	377	1,600	275	195	115	49	70	109
23	66	108	3,360	1,040	446	1,630	306	179	136	46	95	99
24	66	110	3,320	581	573	712	302	183	350	46	77	95
25	65	112	2,040	550	420	540	291	170	207	52	164	89
26	67	109	740	617	360	443	257	159	157	77	139	83
27	68	110	970	815	327	391	236	173	141	385	186	81
28	69	119	1,620	781	305	367	225	190	152	735	113	82
29	86	138	1,270	623	------	350	213	169	272	357	89	89
30	111	184	643	545	------	511	204	173	263	230	81	123
31	194	------	625	454	------	1,080	------	169	------	217	88	------
TOTAL	6,365	4,119	30,097	19,810	11,360	16,582	17,124	10,734	7,063	4,145	4,264	13,816
MEAN	205	137	971	639	406	535	571	346	235	134	138	461
MAX	1,740	265	3,640	1,340	573	1,630	1,730	1,460	807	735	287	2,880
MIN	42	105	109	294	305	254	204	159	115	46	70	81
CFSM	.52	.35	2.46	1.62	1.03	1.36	1.45	.89	.60	.34	.35	1.17
IN	.60	.39	2.84	1.87	1.07	1.57	1.62	1.01	.67	.39	.40	1.30

CAL YR 1973 TOTAL 184,162 MEAN 505 MAX 3,810 MIN 36 CFSM 1.28 IN 17.39
WTR YR 1974 TOTAL 145,479 MEAN 399 MAX 3,640 MIN 42 CFSM 1.01 IN 13.74

PEAK DISCHARGE (BASE, 2,200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	1400	12.00	3,830	9- 7	0400	10.97	3,380

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.

LOCATION.--Lat 37°46'03", long 77°19'57", Hanover-King William County line, near center of span on downstream side of bridge on State Highway 614, 0.3 mi (0.5 km) upstream from Mechumps Creek, 2.0 mi (3.2 km) east of Hanover, and 7.0 mi (11.3 km) upstream from Millpond Creek.

DRAINAGE AREA.--1,081 mi² (2,800 km²).

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1302.

GAGE.--Nonrecording gage. Datum of gage is 14.72 ft (4.487 m) above mean sea level. Since June 11, 1957, auxiliary nonrecording gage, 1.2 mi (1.9 km) downstream from base gage.

AVERAGE DISCHARGE.--33 years, 969 ft³/s or 27.44 m³/s (12.17 in/yr or 309 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,030 ft³/s (256 m³/s) Dec. 24 (gage height, 21.00 ft or 6.401 m, from graph based on gage readings); minimum daily, 127 ft³/s (3.60 m³/s) July 26.

Period of record: Maximum discharge, 40,300 ft³/s (1,140 m³/s) Aug. 23, 1969 (gage height, 31.12 ft or 9.485 m, from floodmarks), from rating curve extended above 22,000 ft³/s (623 m³/s); minimum, 12 ft³/s (0.34 m³/s) Sept. 12, 1966.

Flood in August 1928 reached a stage of 32.6 ft (9.94 m), from information by local residents.

REMARKS.--Records good. Some regulation since January 1972 by Lake Anna (capacity, 373,000 acre-ft or 460 hm³) and occasional diurnal fluctuation at low flow caused by mill above station. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 1302: 1944(M). WSP 1382: 1949. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	393	406	2,890	1,130	830	6,460	765	566	496	690	196
2	215	390	352	3,250	1,010	820	3,760	845	1,270	370	579	190
3	2,120	293	300	3,220	1,050	803	2,080	1,310	2,830	313	545	582
4	3,520	282	273	2,670	1,110	800	1,790	1,780	2,870	257	420	1,310
5	2,520	297	300	2,500	1,090	793	1,880	1,380	1,500	237	452	1,910
6	1,270	370	553	2,040	1,060	775	2,150	928	825	214	715	1,620
7	750	435	1,380	1,670	1,250	790	2,380	828	546	203	910	3,450
8	703	560	1,540	1,940	1,420	803	2,450	770	512	200	665	6,720
9	445	663	1,710	2,220	1,560	815	3,480	776	540	200	569	8,340
10	355	770	2,450	2,300	1,610	783	4,860	1,120	610	187	700	6,260
11	325	800	2,740	2,730	1,280	755	2,670	1,590	559	180	617	2,280
12	274	705	2,640	2,220	1,050	950	1,870	1,580	494	170	487	1,400
13	253	540	2,130	1,390	1,010	1,320	1,750	2,360	439	173	434	1,030
14	229	473	1,410	1,100	1,020	1,650	1,450	3,350	373	171	366	580
15	194	445	995	983	1,060	1,940	1,460	2,490	347	168	362	531
16	199	413	1,010	990	1,070	2,070	1,420	1,230	309	170	569	464
17	201	390	1,110	985	1,090	2,010	1,250	651	501	177	656	429
18	183	380	1,240	925	1,140	1,850	1,060	617	541	176	329	379
19	172	322	1,300	863	1,130	1,530	1,010	863	536	167	221	353
20	155	290	1,390	825	1,060	1,260	950	1,030	416	161	207	343
21	150	294	2,090	875	1,030	1,350	913	870	353	159	180	321
22	174	242	4,650	1,410	1,040	2,370	868	670	315	150	183	293
23	174	251	7,520	2,180	1,110	3,900	845	521	219	137	345	281
24	171	262	8,890	2,480	1,330	3,190	930	600	234	132	725	254
25	155	273	8,730	1,820	1,370	2,250	735	685	555	130	646	235
26	155	269	7,540	1,450	1,160	1,710	680	627	617	127	406	232
27	147	273	5,670	1,940	910	1,130	569	510	591	293	315	228
28	143	344	4,470	2,110	815	900	552	521	603	1,050	301	228
29	150	480	4,340	2,060	------	1,230	550	600	624	930	289	239
30	224	460	2,810	1,680	------	2,510	610	588	668	622	254	235
31	337	------	2,190	1,280	------	5,440	------	557	------	890	223	------
TOTAL	16,259	12,359	84,261	57,676	31,965	49,327	53,502	33,014	21,456	9,022	14,360	41,013
MEAN	525	412	2,715	1,861	1,142	1,591	1,783	1,065	715	291	463	1,367
MAX	3,520	800	8,890	3,250	1,610	5,440	6,460	3,350	2,870	1,050	910	8,340
MIN	135	242	273	825	815	755	550	510	219	127	180	190
CFSM	.49	.38	2.51	1.72	1.06	1.47	1.65	.99	.66	.27	.43	1.26
IN	.56	.43	2.90	1.99	1.10	1.70	1.84	1.14	.74	.31	.49	1.41

CAL YR 1973 TOTAL 528,679 MEAN 1,448 MAX 10,400 MIN 120 CFSM 1.34 IN 18.19
WTR YR 1974 TOTAL 424,224 MEAN 1,162 MAX 8,890 MIN 127 CFSM 1.07 IN 14.60

01673500 TOTOPOTOMOY CREEK NEAR ATLEE, VA.

LOCATION.--Lat 37°40'09", long 77°22'58", Hanover County, on right bank at upstream side of bridge on U.S. Highway 301, 0.7 mi (1.1 km) upstream from Opossum Creek, and 1.6 mi (2.6 km) northeast of Atlee.

DRAINAGE AREA.--5.89 mi² (15.26 km²).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 116.33 ft (35.457 m) above mean sea level. Prior to Aug. 9, 1954, at site 8 ft (2 m) downstream at datum 0.04 ft (0.012 m) higher.

AVERAGE DISCHARGE.--26 years, 5.66 ft³/s or 0.160 m³/s (13.05 in/yr or 331 mm/yr).

EXTREMES.--Current year: Maximum discharge, 147 ft³/s (4.16 m³/s) Sept. 7 (gage height, 6.04 ft or 1.841 m); minimum, 0.10 ft³/s (0.003 m³/s) July 21 (gage height, 1.95 ft or 0.594 m).

Period of record: Maximum discharge, 748 ft³/s (21.2 m³/s) Aug. 13, 1955 (gage height, 8.62 ft or 2.627 m); no flow Aug. 4-7, 15-18, 1963.

Flood, probably in July 1945, reached a stage of 7.5 ft (2.29 m), from floodmarks (discharge, 400 ft³/s or 11.3 m³/s).

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	4.2	1.2	35	5.6	3.9	15	2.0	17	1.0	1.7	.35
2	14	2.8	1.2	13	5.0	3.7	11	2.6	36	.77	1.6	.35
3	13	2.3	1.3	7.5	5.3	3.5	9.1	9.1	34	.62	2.8	10
4	2.6	2.2	1.3	16	5.6	3.3	13	4.2	20	.54	9.8	26
5	1.6	4.7	1.8	11	5.0	3.3	16	4.2	9.1	.50	17	4.0
6	1.2	4.7	2.1	7.2	4.7	3.3	11	12	4.2	.46	6.0	34
7	1.0	3.3	1.6	6.3	14	3.3	8.7	8.7	3.1	.50	37	102
8	1.4	1.7	3.2	5.0	11	3.3	8.3	9.8	3.1	.46	23	29
9	1.6	2.6	28	11	6.7	3.1	59	18	3.0	.43	15	12
10	1.2	1.5	6.9	11	7.9	2.8	22	23	2.1	.39	6.6	5.3
11	1.0	2.0	3.3	8.3	6.9	3.1	13	22	1.2	.35	2.6	3.0
12	1.0	1.8	2.5	6.3	6.9	9.1	9.4	27	1.1	.31	1.1	2.2
13	.75	1.4	3.1	4.4	7.5	7.2	7.9	34	1.2	.27	1.1	1.7
14	.82	1.4	6.0	3.9	7.2	5.3	8.7	20	1.1	.27	1.1	1.6
15	.65	1.4	3.7	3.7	6.0	4.2	8.3	21	1.1	.24	6.3	1.6
16	.65	2.4	3.7	3.7	5.3	13	5.6	21	1.0	.24	2.8	1.0
17	.65	1.1	5.3	3.5	9.8	31	4.7	19	1.0	.20	4.8	1.1
18	.65	1.1	4.0	3.1	7.5	13	4.0	18	.92	.24	15	1.1
19	.75	1.1	3.3	3.3	5.3	9.1	3.9	19	.77	.20	3.5	.92
20	.82	1.1	6.9	3.0	6.3	7.9	3.5	20	.69	.24	1.3	.54
21	.75	1.1	79	8.4	5.6	17	3.3	19	.62	.15	.84	.39
22	.75	1.2	22	11	7.5	20	3.1	17	.62	.20	4.3	.39
23	.92	1.3	9.8	6.6	9.4	11	5.6	20	.84	.16	30	.50
24	.75	1.3	6.6	5.3	5.6	8.7	4.2	18	3.4	.39	12	.54
25	.75	1.4	6.9	7.5	5.0	6.9	3.3	12	2.0	.35	4.2	.69
26	.82	1.2	5.3	13	4.4	5.6	3.0	7.5	1.3	.72	2.6	.50
27	.92	1.2	5.3	19	4.2	5.3	2.8	24	1.1	49	18	.54
28	1.1	1.4	4.4	12	4.0	4.7	2.6	23	1.7	17	8.3	1.1
29	3.5	1.4	3.7	13	------	5.3	2.3	11	1.6	6.9	2.0	3.1
30	3.9	1.4	3.5	8.7	------	26	2.2	8.3	1.1	8.3	.62	2.6
31	4.2	------	5.3	6.9	------	32	------	6.0	------	2.8	.39	------
TOTAL	64.52	57.7	242.2	277.6	187.6	278.9	274.5	480.4	155.96	94.20	243.35	248.11
MEAN	2.08	1.92	7.81	8.95	6.70	9.00	9.15	15.5	5.20	3.04	7.85	8.27
MAX	14	4.7	79	35	14	32	59	34	36	49	37	102
MIN	.65	1.1	1.2	3.0	4.0	2.8	2.2	2.0	.62	.15	.39	.35
CFSM	.35	.33	1.33	1.52	1.14	1.53	1.55	2.63	.88	.52	1.33	1.40
IN	.41	.36	1.53	1.75	1.18	1.76	1.73	3.03	.99	.59	1.54	1.57

CAL YR 1973 TOTAL 2,262.57 MEAN 6.20 MAX 79 MIN .32 CFSM 1.05 IN 14.29
WTR YR 1974 TOTAL 2,605.04 MEAN 7.14 MAX 102 MIN .15 CFSM 1.21 IN 16.45

PEAK DISCHARGE (BASE, 70 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1300	4.75	104	7-27	1100	4.09	74
4- 9	0800	4.59	97	9- 7	0400	6.04	147

01673800 PO RIVER NEAR SPOTSYLVANIA, VA.

LOCATION.--Lat 38°10'17", long 77°35'42", Spotsylvania County, on right bank at upstream side of bridge on State Highway 208, 1.6 mi (2.6 km) north of Snell, 2.0 mi (3.2 km) south of Spotsylvania, 4.8 mi (7.7 km) downstream from Gladys Run, and 4.9 mi (7.9 km) upstream from U.S. Highway 1.

DRAINAGE AREA.--77.4 mi² (200.5 km²).

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 183.76 ft (56.010 m) above mean sea level. Prior to Sept. 30, 1964, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 74.4 ft³/s or 2.107 m³/s (13.05 in/yr or 331 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,150 ft³/s (60.9 m³/s) Dec. 22 (gage height, 11.27 ft or 3.435 m); minimum, 5.6 ft³/s (0.16 m³/s) July 23-26 (gage height, 1.73 ft or 0.527 m).

Period of record: Maximum discharge, 10,900 ft³/s (309 m³/s) June 22, 1972 (gage height, 19.03 ft or 5.800 m), from rating curve extended above 3,400 ft³/s (96.3 m³/s); minimum daily, 0.10 ft³/s (0.003 m³/s) Oct. 24-29, 1963, Sept. 6-13, 1966.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	24	23	247	75	51	273	36	45	33	17	9.5
2	72	20	22	198	70	49	138	34	135	46	12	7.5
3	266	20	21	122	75	68	112	42	385	36	10	10
4	67	16	25	132	85	47	130	54	127	24	12	109
5	32	24	34	146	73	46	180	42	56	20	24	53
6	21	65	100	108	61	45	204	51	40	18	22	50
7	15	40	180	95	92	53	117	57	34	18	16	430
8	14	27	85	80	112	58	104	43	34	18	14	329
9	25	25	170	110	83	49	370	59	34	17	18	67
10	25	23	320	175	73	65	344	123	30	15	62	40
11	19	22	107	170	72	46	149	69	25	14	40	82
12	16	21	64	150	73	77	111	100	73	13	20	56
13	14	20	53	135	80	98	99	415	23	13	14	34
14	14	19	102	120	79	72	96	192	23	11	11	25
15	12	18	94	110	68	57	91	74	23	9.5	9.5	20
16	11	18	65	110	60	60	77	52	37	9.1	8.2	17
17	9.9	17	66	100	68	144	57	41	46	12	7.8	15
18	9.5	20	69	95	72	105	64	36	34	12	9.9	14
19	9.5	20	68	90	65	75	62	37	24	10	18	14
20	9.5	19	100	85	63	123	58	44	20	8.6	14	14
21	9.9	18	782	90	57	283	55	38	18	7.5	11	12
22	9.9	18	1,820	110	57	520	53	32	31	6.5	11	12
23	10	18	410	190	96	180	58	30	31	6.2	15	11
24	10	18	174	160	71	108	65	31	37	5.9	16	9.9
25	11	18	134	135	59	84	53	30	32	6.2	18	9.1
26	11	18	150	120	56	70	48	25	26	7.2	13	9.5
27	11	25	415	160	51	67	46	26	84	15	18	9.1
28	12	55	349	150	50	62	43	27	150	16	14	16
29	27	32	148	100	-------	61	42	26	64	13	11	74
30	54	26	114	90	-------	180	39	25	44	27	9.9	36
31	30	-------	114	80	-------	475	-------	26	-------	34	12	-------
TOTAL	864.0	724	6,378	3,963	1,996	3,439	3,348	1,917	1,715	501.7	508.3	1,572.6
MEAN	27.9	24.1	206	128	71.3	111	112	61.8	57.2	16.2	16.4	52.4
MAX	266	65	1,820	247	112	520	370	415	385	46	62	430
MIN	6.8	16	21	80	50	45	39	25	18	5.9	7.8	7.5
CFSM	.36	.31	2.66	1.65	.92	1.43	1.45	.80	.74	.21	.21	.68
IN	.42	.35	3.07	1.90	.96	1.65	1.61	.92	.82	.24	.24	.76

CAL YR 1973 TOTAL 36,624.2 MEAN 100 MAX 2,280 MIN 3.8 CFSM 1.29 IN 17.60
WTR YR 1974 TOTAL 26,926.6 MEAN 73.8 MAX 1,820 MIN 5.9 CFSM .95 IN 12.96

PEAK DISCHARGE (BASE, 900 FT³/S).--DEC. 22 (1130) 2,150 FT³/S (11.27 FT).

NOTE.--NO GAGE-HEIGHT RECORD NOV. 6 TO DEC. 10.

01674000 MATTAPONI RIVER NEAR BOWLING GREEN, VA.

LOCATION.--Lat 38°03'42", long 77°23'10", Caroline County, on left bank 0.1 mi (0.2 km) upstream from bridge on State Highway 605, 2.2 mi (3.5 km) northwest of Bowling Green, 2.4 mi (3.9 km) upstream from South River, and 7.1 mi (11.4 km) downstream from confluence of Matta and Poni Rivers.

DRAINAGE AREA.--257 mi^2 (666 km^2).

PERIOD OF RECORD.--September 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 85.14 ft (25.951 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 235 ft^3/s or 6.655 m^3/s (12.42 in/yr or 315 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,230 ft^3/s (120 m^3/s) Dec. 23 (gage height, 12.69 ft or 3.868 m); minimum, 13 ft^3/s (0.37 m^3/s) July 25, 26.

Period of record: Maximum discharge, 13,400 ft^3/s (379 m^3/s) June 23, 1972 (gage height, 18.95 ft or 5.776 m, from high-water mark in well), from rating curve extended above 8,100 ft^3/s (229 m^3/s); no flow at times in September and October 1954, and September 1966.

Flood in August 1928 reached a stage of 19.5 ft (5.94 m) based on relative difference in stage between this flood and flood of Oct. 17, 1942, at Milford 4 mi (6 km) downstream (discharge, 15,000 ft^3/s or 425 m^3/s, from rating curve extended above 8,100 ft^3/s or 229 m^3/s).

REMARKS.--Records good. Some diurnal fluctuation from gristmill upstream on Po River. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1382: 1943, 1945(M), 1948(M), 1949, 1953(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	98	104	548	292	174	830	120	158	109	112	32
2	69	80	89	700	260	172	1,010	112	330	122	68	30
3	332	68	80	778	244	188	700	139	548	151	56	42
4	428	61	75	630	252	187	548	205	726	109	47	220
5	398	61	80	548	260	174	488	187	752	73	52	284
6	182	93	252	508	268	164	528	172	380	59	71	242
7	92	118	418	458	292	162	548	187	205	53	110	834
8	65	107	398	368	324	171	498	168	172	49	103	1,150
9	63	94	388	324	350	172	598	162	162	47	74	1,300
10	64	96	568	378	324	160	860	332	147	42	71	752
11	67	92	804	428	292	148	1,130	398	126	38	108	368
12	58	85	752	448	276	182	778	308	103	34	87	398
13	51	77	398	448	268	228	528	388	93	29	58	341
14	47	72	316	428	276	244	428	548	87	26	44	220
15	43	68	300	341	268	212	388	726	80	25	36	154
16	41	65	300	316	252	187	341	488	77	31	32	118
17	38	63	292	324	244	332	292	276	102	26	29	100
18	34	61	276	324	244	438	250	187	115	23	30	90
19	32	63	300	300	244	388	236	143	91	23	34	84
20	30	68	276	260	236	316	220	162	71	22	34	76
21	30	67	548	244	220	408	205	158	61	18	34	68
22	30	67	1,870	316	212	652	188	137	61	16	40	62
23	30	67	3,870	428	236	1,130	155	122	76	15	187	55
24	33	66	2,100	528	244	1,070	205	122	78	14	128	50
25	35	68	950	418	236	630	190	115	88	13	76	46
26	34	66	652	350	212	398	171	101	82	36	60	47
27	34	67	568	378	190	308	153	96	75	236	74	44
28	34	81	667	418	178	276	139	103	115	132	62	42
29	38	155	860	418	------	252	134	97	190	76	57	52
30	87	140	726	388	------	340	130	95	150	119	44	114
31	117	------	528	332	------	548	------	94	------	180	37	------
TOTAL	2,664	2,434	19,805	13,075	7,194	10,411	12,872	5,648	5,531	1,946	2,055	7,395
MEAN	85.9	81.1	639	422	257	336	429	214	183	62.8	66.3	247
MAX	428	155	3,870	778	350	1,130	1,100	726	752	236	187	1,300
MIN	28	61	75	244	178	148	130	94	61	13	29	30
CFSM	.33	.32	2.49	1.64	1.00	1.31	1.67	.83	.71	.24	.26	.96
IN	.39	.35	2.87	1.89	1.04	1.51	1.86	.96	.80	.28	.30	1.07

CAL YR 1973 TOTAL 123,594 MEAN 339 MAX 4,230 MIN 17 CFSM 1.32 IN 17.89
WTR YR 1974 TOTAL 92,000 MEAN 252 MAX 3,870 MIN 13 CFSM .98 IN 13.32

PEAK DISCHARGE (BASE, 2,000 FT^3/S).--DEC. 23 (0530) 4,230 FT^3/S (12.69 FT).

01674500 MATTAPONI RIVER NEAR BEULAHVILLE, VA.

LOCATION (revised).--Lat 37°53'16", long 77°09'48", King and Queen County, on left bank 0.4 mi (0.6 km) upstream from bridge on State Highway 628, 2.4 mi (3.9 km) north of Beulahville, and 2.7 mi (4.3 km) downstream from Maracossic Creek.

DRAINAGE AREA.--601 mi² (1,557 km²).

PERIOD OF RECORD.--September 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 12.43 ft (3.789 m) above mean sea level (levels by Virginia Department of Highways and Transportation). Prior to Oct. 14, 1942, nonrecording gage, and Oct. 15, 1942, to Aug. 8, 1974, water-stage recorder at site 80 ft (24 m) upstream at same datum.

AVERAGE DISCHARGE.--33 years, 581 ft³/s or 16.45 m³/s (13.13 in/yr or 334 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,390 ft³/s (96.0 m³/s) Dec. 26 (gage height, 15.04 ft or 4.584 m); minimum, 62 ft³/s (1.76 m³/s) July 24 (gage height, 2.50 ft or 0.762 m).
Period of record: Maximum discharge, 16,900 ft³/s (479 m³/s) June 25, 1972 (gage height, 23.97 ft or 7.306 m, from floodmarks); maximum gage height, 24.04 ft (7.327 m) Aug. 23, 1969; minimum discharge, 5.9 ft³/s (0.17 m³/s) Sept. 14, 1966 (gage height, 0.94 ft or 0.287 m).

REMARKS.--Records good. Diurnal fluctuation at times during low flow caused by gristmill on Po River. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	131	254	320	1,370	927	410	1,550	380	243	242	352	133
2	132	257	240	1,700	761	426	1,580	354	353	404	285	117
3	564	233	260	1,360	676	447	1,530	645	940	353	332	117
4	675	203	230	1,320	605	445	1,540	673	431	312	345	241
5	904	202	240	1,670	936	474	1,730	732	1,000	248	344	274
6	705	277	300	1,550	605	437	1,590	634	1,030	197	273	574
7	444	243	700	1,440	765	435	1,240	634	945	154	428	1,120
8	311	265	950	1,210	994	440	1,110	606	551	141	740	1,910
9	261	245	900	1,070	920	434	1,330	547	344	130	650	2,190
10	225	313	900	1,050	794	430	1,500	554	355	117	494	2,410
11	217	305	950	1,080	755	415	1,910	634	313	105	240	2,510
12	210	273	1,050	1,090	714	495	1,680	425	276	98	235	2,310
13	197	243	1,070	1,020	675	505	1,440	451	241	94	234	1,770
14	191	223	1,140	966	655	614	1,470	954	209	99	196	1,150
15	155	215	941	917	656	594	1,730	442	197	74	154	561
16	151	255	755	857	841	551	1,240	495	149	114	167	435
17	149	193	722	753	603	413	1,050	1,010	145	132	154	355
18	132	183	713	742	664	1,020	984	785	143	127	155	313
19	124	182	711	726	541	1,080	700	643	149	108	152	286
20	122	196	674	582	515	1,050	888	612	139	59	159	256
21	121	200	1,010	603	582	495	936	409	156	60	145	234
22	114	195	1,050	730	588	1,070	545	401	153	72	132	230
23	115	201	1,490	800	624	1,220	601	363	151	56	253	201
24	126	196	2,040	830	532	1,350	618	355	147	53	534	174
25	121	196	2,120	913	604	1,500	592	344	146	53	492	144
26	122	194	3,340	1,010	550	1,640	548	321	135	56	316	155
27	123	195	3,040	1,020	524	1,700	510	313	207	129	230	150
28	114	230	2,370	912	490	1,140	467	335	209	273	204	155
29	135	310	1,750	961	-------	769	434	324	227	342	206	233
30	265	330	1,340	925	-------	833	348	293	254	355	177	282
31	223	-------	1,330	894	-------	1,250	-------	287	-------	330	154	-------
TOTAL	7,771	7,095	36,267	33,012	18,713	25,215	34,556	17,795	10,530	5,256	8,992	21,122
MEAN	251	237	1,170	1,065	668	813	1,152	574	351	170	290	704
MAX	904	330	3,340	1,700	927	1,700	1,910	1,010	1,030	404	740	2,510
MIN	114	182	230	603	490	415	348	287	133	53	132	117
CFSM	.42	.39	1.95	1.77	1.11	1.35	1.92	.95	.58	.28	.48	1.17
IN.	.48	.44	2.24	2.04	1.16	1.55	2.14	1.10	.65	.33	.56	1.31

CAL YR 1973 TOTAL 274,732 MEAN 753 MAX 3,650 MIN 99 CFSM 1.25 IN 17.01
WTR YR 1974 TOTAL 226,772 MEAN 621 MAX 3,340 MIN 53 CFSM 1.03 IN 14.04

JAMES RIVER BASIN

02011460 BACK CREEK NEAR SUNRISE, VA.

LOCATION.--Lat 38°14'43", long 79°46'08", Bath County, on right bank 900 ft (270 m) upstream from bridge on State Highway 600, 0.8 mi (1.3 km) upstream from Gap Run, and 4.6 mi (7.7 km) northeast of Sunrise.

DRAINAGE AREA.--56.7 mi² (146.9 km²).

PERIOD OF RECORD.--June to September 1974.

GAGE.--Water-stage recorder. Altitude of gage is 2,150 ft or 655 m (from topographic map).

EXTREMES.--Maximum discharge during period, 181 ft³/s (5.13 m³/s) July 28 (gage height, 1.77 ft or 0.539 m); minimum, 6.1 ft³/s (0.17 m³/s) Sept. 27-30.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										41	15	9.4
2										35	13	9.4
3										28	14	9.0
4										24	13	16
5										24	13	12
6										30	12	11
7										50	10	42
8										31	13	35
9										25	18	25
10										20	20	20
11										17	15	17
12										15	13	13
13										13	12	13
14										12	10	11
15										11	21	9.8
16										11	17	9.5
17										11	15	8.7
18										10	13	7.8
19										9.8	13	7.3
20									37	9.4	14	7.1
21									30	9.3	12	7.1
22									31	9.3	10	7.1
23									39	8.8	9.8	7.1
24									58	22	9.0	6.9
25									51	13	9.0	6.7
26									51	17	8.4	6.7
27									44	44	7.8	6.3
28									40	30	8.0	6.3
29					------				48	59	9.4	6.3
30					------				47	33	9.3	6.3
31		------			------		------		------	21	9.2	------
TOTAL										693.6	385.6	357.8
MEAN										22.4	12.4	11.9
MAX										59	21	42
MIN										8.8	7.8	6.3
CFSM										.39	.22	.21
IN.										.45	.25	.23

PEAK DISCHARGE (BASE, 850 FT³/S).--NO PEAK ABOVE BASE.

02011480 BACK CREEK ON ROUTE 600, NEAR MOUNTAIN GROVE, VA.

LOCATION.--Lat 38°08'05", long 79°51'57", Bath County, on right bank 70 ft (21 m) upstream from bridge on State Highway 600, 2.8 mi (4.5 km) northeast of Mountain Grove, and 3.0 mi (4.8 km) upstream from Little Back Creek.

DRAINAGE AREA.--85.8 mi² (222.2 km²).

PERIOD OF RECORD.--October 1973 to September 1974.

GAGE.--Water-stage recorder. Altitude of gage is 1,830 ft or 558 m (from topographic map).

EXTREMES.--Maximum discharge during period, 7,420 ft³/s (210 m³/s) Dec. 26 (gage height, 9.90 ft or 3.018 m), from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of runoff comparisons with nearby stations; minimum, 6.0 ft³/s (0.17 m³/s) Sept. 27, 28, 30.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	190	166	294	168	112	82	48	515	66	23	16
2	88	120	110	254	144	124	78	45	2,800	54	19	16
3	60	75	82	243	128	156	80	60	1,240	44	18	15
4	40	84	73	330	99	158	470	53	542	38	18	16
5	30	51	130	373	76	140	654	50	330	34	18	16
6	25	80	320	294	66	119	403	61	237	32	18	16
7	20	75	215	226	64	130	281	58	178	55	15	36
8	18	65	135	163	61	180	234	55	140	48	16	40
9	17	70	145	168	54	180	223	245	112	39	21	31
10	17	60	129	978	48	158	199	454	94	31	26	25
11	16	55	84	1,620	47	142	180	294	82	26	24	21
12	15	48	62	1,046	41	502	163	1,860	66	23	20	18
13	15	43	61	552	43	571	156	1,600	55	20	18	16
14	14	39	62	358	47	420	137	629	49	18	16	15
15	13	37	62	265	50	314	126	384	47	17	17	13
16	13	43	60	204	51	259	105	265	78	16	22	11
17	13	48	56	156	53	257	92	201	64	16	18	11
18	13	50	50	119	48	237	82	163	69	14	17	9.6
19	13	52	48	99	48	265	74	135	42	14	16	9.0
20	13	46	269	82	54	376	66	103	48	14	17	8.5
21	13	46	1,740	340	45	589	58	80	41	14	16	8.0
22	13	47	754	506	212	730	54	67	39	13	14	7.5
23	12	42	471	344	454	484	80	66	44	12	13	7.5
24	12	43	376	304	291	346	70	56	78	18	12	6.5
25	12	44	297	808	220	237	66	50	70	20	12	6.5
26	12	46	4,570	694	153	183	62	43	68	16	11	6.5
27	12	80	2,350	524	117	146	58	39	82	58	10	6.0
28	15	406	780	411	103	112	55	34	92	35	11	6.5
29	30	580	458	330	------	97	51	33	100	80	14	7.0
30	95	262	399	256	------	101	49	112	80	45	13	6.5
31	100	------	344	264	------	99	------	183	------	31	16	------
TOTAL	752	2,897	14,854	12,497	2,985	7,918	4,488	7,526	7,462	961	519	427.6
MEAN	24.3	96.6	479	403	107	255	150	243	249	31.0	16.7	14.3
MAX	100	580	4,570	1,620	454	730	654	1,860	2,800	80	26	40
MIN	12	37	48	82	41	97	49	33	39	12	10	6.0
CFSM	.28	1.13	5.58	4.69	1.25	2.97	1.75	2.83	2.90	.36	.19	.17
IN	.33	1.26	6.44	5.42	1.29	3.43	1.94	3.26	3.23	.42	.22	.19

CAL YR 1973 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1974 TOTAL 63,286.6 MEAN 173 MAX 4,570 MIN 6.0 CFSM 2.02 IN 27.43

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO NOV. 27.

PEAK DISCHARGE (BASE, 1,300 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0500	6.29	2,420	5-12	1900	8.55	5,250
12-26	1900	9.90	7,420	6- 2	1230	8.57	5,250
1-10	1830	6.14	2,280				

02011500 BACK CREEK NEAR MOUNTAIN GROVE, VA.

LOCATION.--Lat 38°04'10", long 79°53'50", Bath County, on left bank 0.3 mi (0.5 km) downstream from Cummings Run, 0.8 mi (1.3 km) downstream from bridge on State Highway 39, and 2.1 mi (3.4 km) south of Mountain Grove.

DRAINAGE AREA.--134 mi^2 (347 km^2).

PERIOD OF RECORD.--October 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,701.45 ft (518.602 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 180 ft^3/s or 5.098 m^3/s (18.24 in/yr or 463 mm/yr).

EXTREMES.--Current year: Maximum discharge, 11,600 ft^3/s (329 m^3/s) Dec. 26 (gage height, 10.42 ft or 3.176 m), from rating curve extended as explained below; minimum, 10 ft^3/s (0.28 m^3/s) Sept. 30.

Period of record: Maximum discharge, 12,700 ft^3/s (360 m^3/s) Mar. 7, 1967 (gage height, 10.77 ft or 3.283 m), from rating curve extended above 4,000 ft^3/s (113 m^3/s) on basis of three slope-area measurements at gage heights 7.39 ft (2.252 m), 9.05 ft (2.758 m), and 9.35 ft (2.850 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Aug. 18, 1967; minimum gage height, 1.67 ft (0.509 m) Oct. 14, 1951.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	270	256	405	240	177	136	80	530	90	30	21
2	100	206	181	362	213	180	134	76	3,200	78	25	21
3	71	122	145	352	192	207	132	94	1,560	66	24	20
4	66	88	122	458	160	207	640	87	636	58	25	22
5	37	84	231	509	134	192	770	84	380	54	26	21
6	31	110	402	405	128	174	474	92	269	53	24	20
7	26	103	316	310	126	189	326	90	207	77	22	40
8	26	88	234	246	120	237	283	87	160	65	22	48
9	26	97	273	266	110	237	266	309	132	54	27	38
10	26	88	256	1,600	97	222	243	577	118	45	30	31
11	25	80	194	2,160	94	201	219	366	104	36	29	27
12	22	71	157	1,360	92	593	204	2,840	90	33	25	24
13	22	64	148	684	94	823	192	2,060	81	30	23	21
14	21	58	125	458	97	610	171	762	74	27	20	20
15	19	53	127	346	100	452	158	464	70	25	20	18
16	19	61	125	272	102	360	138	326	102	25	26	17
17	19	71	116	222	104	370	124	249	92	24	22	16
18	19	73	112	180	98	339	114	207	74	22	22	15
19	19	75	110	160	98	357	106	171	64	21	21	15
20	19	64	293	142	108	486	98	142	73	20	22	14
21	19	70	2,280	523	95	660	90	124	65	20	21	13
22	19	70	502	691	245	975	87	108	62	18	18	13
23	18	66	432	469	526	850	114	106	68	19	18	13
24	18	68	377	439	370	410	104	97	95	24	16	12
25	18	68	294	1,140	294	294	100	89	90	28	16	12
26	18	71	7,110	863	222	237	97	80	87	22	16	11
27	18	106	3,420	712	186	201	94	74	77	57	16	11
28	19	551	1,650	538	171	171	90	69	78	47	16	12
29	44	770	603	420	------	152	86	65	116	75	21	12
30	79	399	532	339	------	160	83	116	104	57	19	10
31	139	------	464	283	------	152	------	189	------	40	21	------
TOTAL	1,024	4,171	21,526	17,316	4,614	10,835	5,873	10,282	8,858	1,312	683	588
MEAN	33.0	139	694	559	165	350	196	332	295	42.3	22.0	19.6
MAX	139	770	7,110	2,160	526	975	770	2,840	3,200	90	30	48
MIN	18	53	110	142	92	152	83	65	62	18	16	10
CFSM	.25	1.04	5.18	4.17	1.23	2.61	1.46	2.48	2.20	.32	.16	.15
IN	.28	1.16	5.98	4.81	1.28	3.01	1.63	2.85	2.46	.36	.19	.16

CAL YR 1973 TOTAL 105,168 MEAN 288 MAX 7,110 MIN 12 CFSM 2.15 IN 29.20
WTR YR 1974 TOTAL 87,084 MEAN 239 MAX 7,110 MIN 10 CFSM 1.78 IN 24.18

PEAK DISCHARGE (BASE, 1,900 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0630	6.57	3,180	5-12	1930	8.88	7,550
12-26	1600	10.42	11,600	6- 2	1500	8.30	6,160
1-10	1700	6.49	3,060				

02011800 JACKSON RIVER BELOW GATHRIGHT DAM, NEAR HOT SPRINGS, VA.

LOCATION.--Lat 37°56'54", long 79°56'58", Alleghany County, on right bank 0.4 mi (0.6 km) upstream from Cedar Creek, 0.5 mi (0.8 km) downstream from Gathright Dam, and 7.3 mi (11.7 km) southwest of Hot Springs.

DRAINAGE AREA.--345 mi^2 (894 km^2).

PERIOD OF RECORD.--October 1973 to September 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,400.00 ft (426.720 m) above mean sea level. Prior to Dec. 20, 1973, nonrecording gage at same site and datum.

EXTREMES.--Maximum discharge during period, 29,000 ft^3/s (821 m^3/s) Dec. 26, result of cofferdam failure during construction of Gathright Dam (gage height, 18.77 ft or 5.721 m), from rating curve extended above 400 ft^3/s (11.3 m^3/s) on basis of slope-area measurement of peak flow; minimum, 77 ft^3/s (2.18 m^3/s) Sept. 30; minimum gage height, 8.23 ft (2.509 m) Oct. 27.
Flood of June 21, 1972, reached a stage of 17.20 ft (5.243 m), from floodmark.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	535	415	1,000	643	426	422	259	741	290	136	118
2	215	525	340	890	583	422	396	255	4,630	259	142	119
3	248	320	289	844	547	441	385	283	3,530	233	141	124
4	178	248	257	993	486	440	928	280	1,400	214	143	125
5	138	233	395	1,050	432	422	1,510	263	874	213	161	123
6	118	275	836	902	398	406	995	276	666	218	139	122
7	112	260	674	773	392	438	772	273	548	231	129	151
8	112	230	584	650	383	507	680	263	457	229	127	166
9	112	215	590	669	364	514	677	398	404	205	138	144
10	140	212	540	2,220	337	487	605	864	371	191	142	133
11	123	193	470	4,750	325	459	549	700	332	183	141	124
12	112	183	380	3,340	314	998	508	2,500	301	175	131	119
13	106	172	335	1,700	309	1,520	488	6,000	278	168	127	116
14	103	160	330	1,160	311	1,200	463	1,900	264	162	123	115
15	99	152	340	906	310	933	443	1,060	253	159	118	109
16	97	150	310	768	305	823	400	782	345	155	131	105
17	95	150	286	653	308	809	367	634	447	132	126	101
18	92	157	248	564	299	741	346	545	298	128	121	98
19	90	157	254	503	294	734	329	484	257	126	121	96
20	88	155	570	462	311	908	314	416	262	126	121	93
21	88	148	4,940	865	295	1,540	296	373	252	124	121	91
22	88	145	2,240	1,340	399	2,110	287	342	237	121	115	89
23	90	148	1,260	970	904	1,310	333	337	245	121	113	88
24	90	145	924	861	718	965	327	316	319	158	114	85
25	88	140	737	1,880	626	756	307	291	286	147	111	82
26	88	150	11,600	1,760	519	640	294	273	270	133	110	83
27	87	207	11,800	1,530	452	567	285	261	249	142	111	82
28	92	584	2,980	1,210	422	502	277	249	254	153	110	84
29	125	701	1,650	1,010	------	463	271	241	397	163	118	82
30	236	515	1,380	832	------	473	265	310	338	186	118	78
31	300	------	1,140	727	------	483	------	397	------	151	117	------
TOTAL	3,856	7,565	49,094	37,782	11,986	23,436	14,519	21,825	19,505	5,396	3,916	3,245
MEAN	124	252	1,584	1,219	428	756	484	704	650	174	126	108
MAX	300	701	11,800	4,750	904	2,110	1,510	6,000	4,630	290	161	166
MIN	87	140	248	462	294	405	265	241	237	121	110	78
CFSM	.36	.73	4.59	3.53	1.24	2.19	1.40	2.04	1.88	.50	.37	.31
IN	.42	.82	5.29	4.07	1.29	2.53	1.57	2.35	2.10	.58	.42	.35

CAL YR 1973 TOTAL - MEAN - MAX - MIN - CFSM - IN -
WTR YR 1974 TOTAL 202,125.00 MEAN 554 MAX 11,800 MIN 78 CFSM 1.61 IN 21.79

PEAK DISCHARGE (BASE, 3,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0945	13.56	6,450	1-10	2400	13.91	6,340
12-26	1325	18.77	29,000	5-13	UNKNOWN	15.91	13,600
12-26	2145	18.14	24,800	6- 2	2000	14.97	9,890

02012500 JACKSON RIVER AT FALLING SPRING, VA.

LOCATION.--Lat 37°52'36", long 79°58'39", Alleghany County, on right bank 20 ft (6 m) upstream from Smith Bridge, 0.8 mi (1.3 km) south of town of Falling Spring, 1.6 mi (2.6 km) downstream from Falling Spring Creek, and 5.5 mi (8.8 km) north of Covington.

DRAINAGE AREA.--411 mi^2 (1,064 km^2).

PERIOD OF RECORD.--April 1925 to current year. Prior to October 1934, published as "at Barber."

GAGE.--Water-stage recorder. Datum of gage is 1,333.49 ft (406.448 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 26, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years, 486 ft^3/s or 13.76 m^3/s (16.06 in/yr or 408 mm/yr).

EXTREMES.--Current year: Maximum discharge, 23,600 ft^3/s (668 m^3/s) Dec. 26 (gage height, 14.45 ft or 4.404 m), from rating curve extended as explained below; minimum, 102 ft^3/s (2.89 m^3/s) Sept. 25-27, 30; minimum gage height, 3.17 ft (0.966 m) Oct. 27, 28.

Period of record: Maximum discharge, 24,700 ft^3/s (700 m^3/s) Mar. 17, 1936 (gage height, 14.74 ft or 4.493 m), from rating curve extended above 17,000 ft^3/s (481 m^3/s) on basis of records for other stations in James River basin; minimum, 36 ft^3/s (1.02 m^3/s) Oct. 12, 1946 (gage height, 2.65 ft or 0.808 m), due to regulation from unknown source; minimum daily, 52 ft^3/s (1.47 m^3/s) Sept. 8, 1966.

Flood of March 1913 reached a stage of about 20 ft or 6.1 m (discharge, about 50,000 ft^3/s or about 1,420 m^3/s).

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 952: 1927, 1928(M), 1929-30, 1932-40. WSP 1303: 1926(M), 1930-34(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	568	588	1,300	800	463	504	272	830	329	163	134
2	313	623	463	1,160	701	463	463	266	3,900	290	191	136
3	375	434	393	1,090	651	477	446	293	3,920	257	218	146
4	256	335	350	1,260	568	477	999	296	1,690	233	206	148
5	207	317	520	1,330	499	455	1,780	275	1,120	233	248	139
6	178	373	1,000	1,150	450	442	1,260	284	847	242	191	139
7	162	351	750	989	442	490	987	284	694	242	166	212
8	177	312	584	812	429	563	853	272	558	254	158	224
9	205	309	674	833	404	578	847	412	477	221	171	188
10	254	317	778	2,060	368	548	741	1,040	429	203	180	163
11	190	281	596	4,960	350	519	662	806	379	191	177	151
12	168	253	491	3,460	336	1,190	604	3,150	339	177	158	141
13	158	237	441	1,990	329	1,790	573	6,700	305	166	151	136
14	149	222	446	1,440	329	1,500	543	2,090	293	158	144	134
15	143	211	454	1,170	329	1,200	514	1,390	278	156	134	127
16	140	206	437	987	322	1,050	459	1,050	354	158	146	123
17	136	214	429	824	322	1,030	412	847	573	151	144	119
18	134	214	366	679	315	939	383	707	343	146	134	116
19	133	214	361	588	305	904	361	619	284	141	134	112
20	133	212	675	533	325	1,130	343	519	281	139	132	110
21	133	201	4,860	963	308	1,700	322	455	278	139	132	110
22	132	202	2,250	1,580	399	2,330	308	408	257	134	125	110
23	131	201	1,380	1,210	1,070	1,610	361	395	260	132	121	108
24	131	195	1,040	1,080	870	1,250	361	372	354	224	121	106
25	129	198	855	2,000	730	981	332	336	318	188	116	102
26	128	201	11,100	2,000	593	812	315	311	293	163	114	102
27	125	264	12,600	1,810	504	701	305	293	269	158	114	102
28	128	690	3,240	1,510	463	614	296	275	272	197	112	106
29	173	1,390	1,960	1,290	------	558	287	266	463	191	125	108
30	322	837	1,660	1,070	------	568	278	332	399	263	136	104
31	380	------	1,430	922	------	588	------	450	------	194	127	------
TOTAL	5,671	10,582	53,171	44,050	13,511	27,920	16,899	25,465	21,047	6,070	4,689	3,958
MEAN	183	353	1,715	1,421	483	901	563	821	702	196	151	132
MAX	380	1,390	12,600	4,960	1,070	2,330	1,780	6,700	3,920	329	248	224
MIN	125	195	350	533	305	442	278	266	257	132	112	102
CFSM	.45	.86	4.17	3.46	1.18	2.19	1.37	2.00	1.71	.48	.37	.32
IN	.51	.96	4.81	3.99	1.22	2.51	1.53	2.30	1.90	.55	.42	.36

CAL YR 1973 TOTAL 273,747 MEAN 750 MAX 12,600 MIN 112 CFSM 1.82 IN 24.78
WTR YR 1974 TOTAL 233,033 MEAN 638 MAX 12,600 MIN 102 CFSM 1.55 IN 21.09

PEAK DISCHARGE (BASE, 4,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1130	9.67	6,610	5-13	0230	11.76	12,400
12-26	2130	14.45	23,600	6- 2	2130	10.67	9,140
1-11	0130	9.27	5,650				

02013000 DUNLAP CREEK NEAR COVINGTON, VA.

LOCATION.--Lat 37°48'10", long 80°02'50", Alleghany County, on right bank 20 ft (6 m) downstream from bridge on U.S. Highway 60, 2.2 mi (3.5 km) downstream from Ogle Creek, and 3.0 mi (4.8 km) west of Covington.

DRAINAGE AREA.--164 mi^2 (425 km^2).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 1,294.70 ft (394.625 m) above mean sea level. Prior to Dec. 8, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--46 years, 163 ft^3/s or 4.616 m^3/s (13.50 in/yr or 343 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,970 ft^3/s (282 m^3/s) Dec. 26 (gage height, 11.03 ft or 3.362 m), from rating curve extended as explained below; minimum, 23 ft^3/s (0.65 m^3/s) Oct. 23, 24, 25, 26, 27, 28 (gage height, 1.48 ft or 0.451 m); minimum daily, 24 ft^3/s (0.68 m^3/s) Oct. 22-27.

Period of record: Maximum discharge, 27,400 ft^3/s (revised) or 776 m^3/s June 21, 1972 (gage height, 15.65 ft or 4.770 m), from rating curve extended above 4,500 ft^3/s (127 m^3/s) on basis of step-backwater computations and contracted-opening measurement at gage height 15.65 ft (4.770 m); minimum, 2.0 ft^3/s (0.057 m^3/s) July 4, 1970; minimum daily, 7.0 ft^3/s (0.20 m^3/s) Sept. 9, 1966; minimum gage height, 0.69 ft (0.210 m) June 6, July 14, 1969.

Flood in March 1913 reached a stage of 18 ft (5.5 m), from information by local residents.

REVISIONS.--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in WRD Va. as indicated.

WRD Va.	Water year	Date	Discharge (ft^3/s)	Gage height (feet)
1969	1969	Aug. 20, 1969	16,500	13.13
1972	1972	June 21, 1972	27,400	15.65
1973	1973	Mar. 17, 1973	9,370	10.76

REMARKS.--Records good. Occasional diurnal fluctuation caused by dam 7.9 mi (12.7 km) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1929-30, 1932-34, 1942. WSP 1303: 1929-35(M), 1937-38(M), 1941-48(M). WRD Va. 1970: Drainage area. Revised figures of discharge, in cubic feet per second, for high-water periods in water years 1972 and 1973, superseding figures published in WRD Va. 1972 and WRD Va. 1973, are given below:

June 21, 1972..............10,200

Month	Ft^3/s-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
June 1972	17,519	10,200	43	584	3.56	3.97
WTR YR 1972	99,760	10,200	17	273	1.66	22.63
CAL YR 1972	123,303	10,200	17	337	2.05	27.97

REVISED PEAK DISCHARGE.--1972: Feb. 26 (1030) 8,280 ft^3/s (10.24 ft); June 21 (1230) 27,400 ft^3/s (15.65 ft).

1973: Mar. 17 (0830) 9,370 ft^3/s (10.76 ft); May 28 (1130) 8,680 ft^3/s (10.44 ft).

02013000 DUNLAP CREEK NEAR COVINGTON, VA.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	476	238	793	247	194	190	82	167	64	38	49
2	240	269	179	684	223	180	192	83	1,390	55	39	62
3	134	162	148	536	209	173	186	88	844	49	77	66
4	79	115	131	536	183	167	812	83	408	45	67	58
5	59	130	207	501	160	160	917	80	250	69	74	47
6	47	203	342	498	149	162	526	88	187	262	60	49
7	39	153	250	331	149	253	367	82	153	223	50	178
8	41	120	196	243	146	313	305	79	127	120	46	122
9	37	101	402	391	135	285	275	412	108	82	45	80
10	43	86	413	749	120	253	225	536	95	66	42	64
11	38	73	276	1,670	116	237	194	335	83	56	39	54
12	34	65	214	1,280	110	1,050	180	1,810	74	50	38	46
13	32	60	191	632	108	1,440	176	1,760	69	46	38	43
14	31	56	256	430	114	793	171	610	67	43	36	43
15	29	52	303	343	116	536	178	375	66	42	35	42
16	28	52	271	275	120	425	162	265	101	43	34	41
17	27	50	249	228	129	363	151	206	149	42	32	39
18	26	44	204	187	124	313	142	176	95	41	31	38
19	26	42	176	169	127	298	133	153	74	39	32	36
20	25	40	566	158	142	316	124	135	70	39	42	35
21	25	39	2,810	265	133	988	114	116	63	38	39	32
22	24	41	1,060	309	443	1,060	108	104	63	36	35	32
23	24	40	578	278	690	594	120	106	62	37	34	31
24	24	39	439	400	425	425	114	101	67	60	31	29
25	24	40	449	877	331	313	104	85	58	60	31	28
26	24	47	5,270	838	250	256	97	77	46	47	30	28
27	24	159	2,930	818	206	223	93	73	43	173	29	27
28	26	957	1,000	572	190	197	90	69	60	74	28	30
29	47	707	583	434	------	185	86	66	99	51	36	30
30	270	353	605	347	------	197	83	146	83	46	50	27
31	555	------	583	291	------	204	------	167	------	42	41	------
TOTAL	2,115	4,771	21,519	15,973	5,595	12,553	6,614	8,548	5,221	2,140	1,279	1,486
MEAN	68.2	159	694	515	200	405	220	276	174	69.0	41.3	49.5
MAX	555	957	5,270	1,670	690	1,440	917	1,810	1,390	262	77	178
MIN	24	39	131	158	108	160	83	66	43	36	28	27
CFSM	.42	.97	4.23	3.14	1.22	2.47	1.34	1.68	1.06	.42	.25	.30
IN	.48	1.08	4.88	3.62	1.27	2.85	1.50	1.94	1.18	.49	.29	.34

CAL YR 1973 TOTAL 109,434 MEAN 300 MAX 5,760 MIN 16 CFSM 1.83 IN 24.82
WTR YR 1974 TOTAL 87,814 MEAN 241 MAX 5,270 MIN 24 CFSM 1.47 IN 19.92

PEAK DISCHARGE (BASE, 2,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0700	6.99	3,630	3-12	2330	5.38	2,080
12-26	1630	11.03	9,970	5-12	2030	7.72	4,360
1-11	1600	5.63	2,310	6- 2	1200	5.61	2,290

02014000 POTTS CREEK NEAR COVINGTON, VA.

LOCATION.--Lat 37°43'44", long 80°02'33", Alleghany County, on left bank at downstream side of bridge on State Highway 18, 0.8 mi (1.3 km) downstream from Blue Spring Creek, and 5.2 mi (8.4 km) southwest of Covington.

DRAINAGE AREA.--153 mi² (396 km²).

PERIOD OF RECORD.--October 1928 to September 1956, October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,273.93 ft (388.294 m) above mean sea level. Prior to Sept.30, 1956, nonrecording gage at site 1.3 mi (2.1 km) downstream at different datum.

AVERAGE DISCHARGE.--37 years, 176 ft³/s or 4.984 m³/s (15.62 in/yr or 397 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,280 ft³/s (150 m³/s) Dec. 27 (gage height, 8.92 ft or 2.719 m, from high-water mark in well); minimum, 32 ft³/s (0.91 m³/s) Sept. 30.
Period of record: Maximum discharge, 12,400 ft³/s (341 m³/s) June 21, 1972 (gage height, 12.33 ft or 3.758 m); minimum observed, 13 ft³/s (0.37 m³/s) Nov. 29, 1930.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1723: 1935, 1936(M), 1940(M), 1942(M), 1948-49(M), 1951-52(M), 1954(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	262	216	1,180	321	243	193	85	143	78	45	39
2	198	228	180	952	292	219	186	88	767	71	47	43
3	137	174	154	749	273	200	176	100	679	64	191	49
4	89	142	142	665	234	186	485	98	416	58	115	60
5	71	152	162	558	200	176	721	92	282	58	108	47
6	63	160	242	476	186	176	526	105	223	166	88	49
7	57	142	225	404	183	251	392	105	189	132	74	90
8	65	127	192	331	176	251	337	102	166	100	69	74
9	61	118	219	464	170	243	302	211	146	83	67	56
10	74	108	220	598	155	230	251	369	130	76	62	49
11	63	98	205	714	149	226	211	268	118	69	56	47
12	57	91	202	728	146	700	189	936	110	64	52	45
13	66	88	200	651	146	1,250	186	1,880	102	56	49	67
14	55	82	200	476	152	812	170	878	98	45	47	71
15	55	80	197	404	149	591	163	552	92	47	43	71
16	55	82	194	342	149	462	149	380	112	45	41	62
17	55	78	190	282	157	410	141	282	141	47	41	54
18	51	74	181	243	160	331	132	230	100	43	39	52
19	53	71	171	219	166	267	128	200	88	41	39	47
20	53	69	180	200	196	277	120	176	85	41	49	43
21	53	67	1,600	326	189	404	115	160	76	39	45	41
22	53	71	1,140	398	492	610	116	146	76	38	41	41
23	63	70	780	348	693	494	118	152	74	38	38	41
24	55	71	500	353	488	410	115	155	78	58	38	39
25	53	71	450	665	398	326	108	130	74	80	36	38
26	55	70	1,060	693	306	273	102	120	69	56	38	36
27	59	168	3,870	798	256	243	95	115	62	78	36	36
28	61	465	1,930	678	230	215	95	112	83	64	38	36
29	108	450	968	565	------	200	90	105	116	56	41	36
30	165	262	833	458	------	223	88	141	92	56	41	34
31	268	------	693	380	------	223	------	143	------	52	39	------
TOTAL	2,442	4,241	17,356	16,218	6,813	11,162	6,188	8,616	4,989	2,005	1,753	1,493
MEAN	78.8	141	560	523	243	360	206	278	166	64.7	56.5	49.8
MAX	268	465	3,870	1,180	693	1,250	721	1,880	767	166	191	90
MIN	51	67	142	200	146	176	88	85	62	38	36	34
CFSM	.52	.92	3.66	3.42	1.59	2.35	1.35	1.82	1.09	.42	.37	.33
IN	.59	1.03	4.22	3.94	1.66	2.71	1.50	2.09	1.21	.49	.43	.36

CAL YR 1973 TOTAL 101,301 MEAN 278 MAX 5,100 MIN 39 CFSM 1.82 IN 24.63
WTR YR 1974 TOTAL 83,276 MEAN 228 MAX 3,870 MIN 34 CFSM 1.49 IN 20.25

PEAK DISCHARGE (BASE, 2,400 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	UNKNOWN	8.92	5,280	5-13	0200	7.00	2,930

NOTE.--NO GAGE-HEIGHT RECORD DEC. 12 TO DEC. 27

02015700 BULLPASTURE RIVER AT WILLIAMSVILLE, VA.

LOCATION (revised).--Lat 38°11'43", long 79°34'14", Bath County, on left bank 15 ft (5 m) downstream from bridge on State Highway 614 at Williamsville and 0.62 mi (1.00 km) upstream from mouth.

DRAINAGE AREA.--110 mi² (285 km²).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,610.14 ft (490.771 m) above mean sea level. Prior to July 12, 1974, at site 700 ft (213 m) upstream at datum 11.84 ft (3 609 m) higher.

AVERAGE DISCHARGE.--14 years, 142 ft³/s or 4.021 m³/s (17.53 in/yr or 445 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,230 ft³/s (205 m³/s) Dec. 26 (gage height, 6.37 ft or 1.942 m, site and datum then in use), from rating curve extended above 3,300 ft³/s (93.5 m³/s); minimum, 38 ft³/s (1.08 m³/s) Sept. 27, 28, 30.

Period of record: Maximum discharge, 7,230 ft³/s (205 m³/s) Dec. 26, 1973 (gage height, 6.37 ft or 1.942 m, site and datum then in use), from rating curve extended above 3,300 ft³/s (93.5 m³/s); minimum, 21 ft³/s (0.59 m³/s) Dec. 8, 1965.

REMARKS.--Records good except those for period of fragmentary or no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	490	161	500	230	140	230	82	700	70	50	44
2	650	304	135	410	210	135	220	83	2,370	60	50	44
3	300	216	124	360	190	125	300	90	975	55	50	47
4	170	166	120	340	180	120	430	82	660	50	52	51
5	100	195	470	335	170	115	567	77	475	53	54	45
6	75	160	434	300	150	120	432	76	350	58	50	44
7	70	151	294	230	135	130	350	74	260	85	48	92
8	68	135	236	250	125	130	300	110	210	75	50	68
9	65	176	238	400	120	130	270	220	170	70	55	54
10	250	135	216	700	115	140	250	190	155	65	71	51
11	105	116	190	975	112	250	225	380	130	64	55	51
12	91	108	161	736	110	350	200	680	110	63	51	50
13	80	105	161	513	105	450	185	1,030	95	60	52	48
14	74	98	176	400	102	370	175	535	92	58	140	59
15	69	91	166	340	100	290	165	430	95	57	108	52
16	69	94	151	300	95	270	155	330	105	58	61	47
17	66	88	139	250	92	235	145	270	130	55	52	45
18	66	80	128	215	88	215	140	220	100	55	48	44
19	63	80	124	190	92	250	130	180	85	57	48	43
20	63	77	408	330	100	350	120	155	75	58	50	41
21	63	74	1,380	610	110	450	110	140	80	55	47	41
22	63	80	594	430	200	604	100	130	73	57	44	41
23	60	74	398	350	290	436	110	125	66	55	47	40
24	57	74	321	500	250	350	105	115	100	79	55	39
25	57	74	277	665	210	290	100	110	85	63	47	39
26	55	74	4,260	549	180	235	95	100	70	57	43	39
27	52	98	2,310	500	150	265	92	90	65	60	43	38
28	55	250	994	450	145	185	90	85	75	64	44	38
29	360	277	665	390	------	180	85	105	95	57	45	39
30	266	195	785	320	------	280	82	135	75	57	45	39
31	332	------	600	265	------	260	------	175	------	52	44	------
TOTAL	3,954	4,355	16,816	13,103	4,156	7,790	5,958	6,604	8,126	1,882	1,699	1,423
MEAN	128	145	543	423	148	251	199	213	271	60.7	54.8	47.4
MAX	650	490	4,260	975	290	604	567	1,030	2,370	85	140	92
MIN	40	74	120	190	88	115	82	74	65	50	43	38
CFSM	1.16	1.32	4.94	3.85	1.35	2.28	1.81	1.94	2.46	.55	.50	.43
IN	1.34	1.47	5.69	4.43	1.41	2.63	2.01	2.23	2.75	.64	.57	.48

CAL YR 1973 TOTAL 85,044 MEAN 233 MAX 4,260 MIN 40 CFSM 2.12 IN 28.76
WTR YR 1974 TOTAL 75,868 MEAN 208 MAX 4,260 MIN 38 CFSM 1.89 IN 25.66

PEAK DISCHARGE (BASE, 2,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	1800	6.37	7,230	6- 2	1300	4.77	4,780
5-12	1800	4.18	3,760				

NOTE.- FRAGMENTARY OR NO GAGE-HEIGHT RECORD DEC. 31 TO JULY 12.

02016000 COWPASTURE RIVER NEAR CLIFTON FORGE, VA.

LOCATION.--Lat 37°47'30", long 79°45'35", Alleghany County, on left bank 100 ft (30 m) downstream from highway bridge, 2.5 mi (4.0 km) upstream from confluence with Jackson River, and 4.0 mi (6.4 km) southeast of Clifton Forge.

DRAINAGE AREA.--461 mi^2 (1,194 km^2).

PERIOD OF RECORD.--March 1925 to current year. Records for May 1907 to August 1908, published in WSP 242, are unreliable and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 1,006.93 ft (306.912 m) above mean sea level (levels by Corps of Engineers). Prior to October 1934, nonrecording gage at site 100 ft (30 m) upstream at present datum.

AVERAGE DISCHARGE.--49 years, 520 ft^3/s or 14.73 m^3/s (15.32 in/yr or 389 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,000 ft^3/s (538 m^3/s) Dec. 27 (gage height, 13.85 ft or 4.221 m), from rating curve extended as explained below; minimum, 95 ft^3/s (2.69 m^3/s) Sept. 30 (gage height, 1.80 ft or 0.549 m).

Period of record: Maximum discharge, 34,200 ft^3/s (969 m^3/s) Mar. 18, 1936 (gage height, 18.62 ft or 5.675 m), from rating curve extended above 13,000 ft^3/s (368 m^3/s) on basis of slope-area measurement at gage height 15.70 ft (4.785 m); minimum, 38 ft^3/s (1.08 m^3/s) Sept. 2, 1932; minimum daily, 40 ft^3/s (1.13 m^3/s) Sept. 1, 1932; minimum gage height, 1.67 ft (0.509 m) Sept. 26, 27, 1963, Aug. 27, 28, 1964, July 26, Sept. 8-11, 1966, July 24, 1968.

Flood in March 1913 reached a stage of 20.8 ft (6.34 m), from floodmarks (discharge, about 45,000 ft^3/s or about 1,270 m^3/s, from rating curve extended above 13,000 ft^3/s or 368 m^3/s on basis of records for other stations in James River basin).

REMARKS.--Records good. Low flow affected by springs and by occasional regulation from unknown source. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 952: 1925-41. WRD Va. 1970: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	769	533	1,640	835	437	928	225	504	253	140	120
2	292	992	420	1,370	726	435	779	225	2,050	222	128	123
3	862	627	345	1,140	673	401	669	253	5,720	194	135	140
4	366	435	303	1,120	597	376	1,330	278	1,840	178	160	150
5	236	371	485	1,150	515	352	2,560	253	1,110	170	185	145
6	183	434	1,980	1,050	452	348	1,730	250	798	175	168	138
7	155	395	1,200	935	432	394	1,280	250	618	215	140	204
8	154	337	808	784	433	431	1,030	239	504	265	148	222
9	153	304	619	878	408	429	997	292	425	194	158	185
10	148	337	930	1,570	364	420	860	637	380	173	158	155
11	258	284	809	4,750	342	426	723	558	350	160	150	140
12	197	246	633	3,610	330	943	636	3,460	292	150	143	143
13	165	228	521	2,070	314	1,660	600	9,510	257	140	135	145
14	148	216	516	1,440	316	1,360	574	2,630	250	135	130	133
15	136	205	594	1,150	304	1,110	555	1,490	239	130	120	130
16	127	197	553	978	289	959	496	1,080	250	130	155	133
17	121	190	516	820	279	935	440	840	350	125	138	125
18	117	182	428	682	276	854	408	686	400	123	120	120
19	114	169	380	580	269	792	376	588	265	118	118	115
20	114	164	683	528	281	938	347	504	225	115	120	113
21	112	161	5,430	1,120	287	1,700	323	425	232	115	115	109
22	110	161	3,630	2,100	401	3,270	305	380	208	113	113	109
23	109	165	1,750	1,390	1,170	1,840	322	360	201	113	113	105
24	107	166	1,280	1,200	891	1,330	340	341	253	165	118	101
25	107	154	1,050	2,010	719	1,030	301	305	350	155	111	99
26	106	157	5,950	2,070	600	824	277	274	269	208	113	97
27	104	194	15,400	1,990	491	705	260	250	260	165	107	97
28	107	439	4,760	1,690	446	613	250	235	236	175	107	107
29	205	921	2,470	1,400	------	555	243	225	292	158	113	105
30	828	735	1,770	1,140	------	634	236	250	319	260	123	103
31	601	------	1,430	969	------	1,060	------	305	------	165	118	------
TOTAL	6,654	10,335	58,376	45,324	13,440	27,563	20,175	25,599	19,447	5,157	4,100	3,911
MEAN	215	345	1,883	1,462	480	889	673	858	648	166	132	130
MAX	862	992	15,400	4,750	1,170	3,270	2,560	9,510	5,720	265	185	222
MIN	104	154	303	528	269	348	236	225	201	113	107	97
CFSM	.47	.75	4.08	3.17	1.04	1.93	1.46	1.86	1.41	.36	.29	.28
IN	.54	.83	4.71	3.66	1.08	2.22	1.63	2.15	1.57	.42	.33	.32

CAL YR 1973 TOTAL 299,281 MEAN 820 MAX 15,400 MIN 95 CFSM 1.78 IN 24.15
WTR YR 1974 TOTAL 241,081 MEAN 660 MAX 15,400 MIN 97 CFSM 1.43 IN 19.45

PEAK DISCHARGE (BASE, 5,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1800	8.46	7,080	5-13	0930	10.68	11,300
12-27	0800	13.85	19,000	6- 3	0530	9.63	9,200
1-11	0700	7.22	5,130				

02016500 JAMES RIVER AT LICK RUN, VA.

LOCATION.--Lat 37°46'25", long 79°47'05", Botetourt County, on right bank at community of Lick Run, 1,000 ft (305 m) downstream from bridge on U.S. Highway 220, 0.9 mi (1.4 km) downstream from confluence of Cowpasture and Jackson Rivers, 1.8 mi (2.9 km) south of Iron Gate, and at mile 342.3.

DRAINAGE AREA.--1,373 mi² (3,556 km²).

PERIOD OF RECORD.--April 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 978.30 ft (298.186 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 26, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years, 1,597 ft³/s or 45.23 m³/s (15.80 in/yr or 401 mm/yr).

EXTREMES.--Current year: Maximum discharge, 54,200 ft³/s (1,530 m³/s) Dec. 27 (gage height, 24.77 ft or 7.550 m); minimum, 289 ft³/s (8.18 m³/s) Sept. 26, 27 (gage height, 1.82 ft or 0.555 m).

Period of record: Maximum discharge, 66,600 ft³/s (1,890 m³/s) Mar. 18, 1936; maximum gage height, 27.01 ft (8.233 m) June 21, 1972; minimum discharge, 148 ft³/s (4.19 m³/s) Sept. 7, 1966 (gage height, 1.42 ft or 0.433 m).

Flood in November 1877 reached a stage of about 33 ft or 10.1 m (discharge, about 120,000 ft³/s or 3,400 m³/s). Flood in March 1913 reached a stage of 30.4 ft (9.27 m), from floodmarks (discharge, about 98,000 ft³/s or 2,780 m³/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 852: 1936-37. WSP 972: 1927, 1930(M), 1932(M), 1935-36. WSP 1303: 1927-28(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	427	2,190	1,920	5,600	2,670	1,660	2,210	833	1,600	983	500	374
2	1,110	2,450	1,520	5,060	2,400	1,630	1,980	827	5,950	852	450	443
3	1,830	1,690	1,260	4,250	2,300	1,550	1,830	906	13,600	756	714	468
4	1,050	1,250	1,110	4,110	2,060	1,510	3,060	963	5,260	669	754	503
5	758	1,120	1,590	4,220	1,820	1,440	6,800	897	3,350	629	810	456
6	644	1,310	4,260	3,800	1,650	1,420	4,750	913	2,490	947	730	446
7	536	1,250	2,850	3,350	1,590	1,620	3,600	921	1,980	1,060	593	736
8	534	1,070	2,140	2,770	1,560	1,860	2,970	873	1,690	1,000	561	858
9	541	972	2,310	2,950	1,500	1,880	2,830	1,180	1,470	775	561	698
10	634	978	3,100	4,610	1,370	1,810	2,490	2,940	1,290	676	556	563
11	661	874	2,350	12,700	1,280	1,740	2,170	2,520	1,190	644	526	498
12	546	778	1,880	11,200	1,240	3,410	1,960	7,370	1,020	589	501	465
13	477	719	1,580	6,560	1,190	6,820	1,870	22,100	925	550	466	456
14	436	686	1,600	4,620	1,150	5,140	1,800	7,830	883	518	446	442
15	407	653	1,840	3,770	1,110	4,020	1,760	4,610	864	495	411	430
16	387	626	1,740	3,200	1,100	3,410	1,610	3,380	920	485	421	418
17	366	598	1,690	2,740	1,110	3,200	1,460	2,670	1,380	472	431	389
18	357	588	1,490	2,350	1,100	2,860	1,360	2,200	1,280	454	398	372
19	343	566	1,260	2,070	1,080	2,660	1,270	1,920	935	437	393	356
20	348	556	1,900	1,910	1,150	2,940	1,190	1,800	818	423	402	344
21	342	546	15,500	3,000	1,180	4,340	1,110	1,650	834	413	402	334
22	342	541	10,100	4,600	1,560	8,430	1,050	1,500	779	399	375	329
23	333	541	5,380	3,870	3,860	5,380	1,100	1,400	737	386	360	317
24	335	526	3,970	3,450	3,200	4,070	1,180	1,240	826	589	364	306
25	330	526	3,370	4,800	2,620	3,180	1,070	1,080	1,010	669	336	299
26	321	536	16,200	6,400	2,200	2,640	999	985	862	652	336	293
27	318	697	43,400	5,900	1,860	2,300	952	940	818	575	323	293
28	336	2,260	13,900	5,220	1,680	2,050	916	874	785	567	325	324
29	557	3,990	7,350	4,330	------	1,880	891	836	1,070	563	344	322
30	1,340	2,740	5,640	3,630	------	1,960	860	985	1,240	625	405	307
31	1,970	------	5,010	3,110	------	2,460	------	1,270	------	617	385	------
TOTAL	18,916	33,827	169,210	140,150	48,590	91,270	59,098	80,413	57,856	19,469	14,579	12,839
MEAN	610	1,128	5,458	4,521	1,735	2,944	1,970	2,594	1,929	628	470	428
MAX	1,970	3,990	43,400	12,700	3,860	8,430	6,800	22,100	13,600	1,060	810	858
MIN	318	526	1,110	1,910	1,080	1,420	860	827	737	386	323	293
CFSM	.44	.82	3.98	3.29	1.26	2.14	1.43	1.89	1.41	.46	.34	.31
IN	.51	.92	4.58	3.80	1.32	2.47	1.60	2.18	1.57	.53	.40	.35

CAL YR 1973 TOTAL 895,491 MEAN 2,453 MAX 43,400 MIN 289 CFSM 1.79 IN 24.26
WTR YR 1974 TOTAL 746,217 MEAN 2,044 MAX 43,400 MIN 293 CFSM 1.49 IN 20.22

PEAK DISCHARGE (BASE, 12,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1700	14.04	20,200	5-13	0930	17.51	28,300
12-27	0700	24.77	54,200	6- 3	0500	13.88	19,800
1-11	2000	11.39	14,300				

02017500 JOHNS CREEK AT NEW CASTLE, VA.

LOCATION.--Lat 37°30'22", long 80°06'25", Craig County, on right bank 20 ft (6 m) downstream from bridge on State Highway 615 at New Castle and 1,700 ft (518 m) upstream from mouth.

DRAINAGE AREA.--104 mi^2 (269 km^2).

PERIOD OF RECORD.--April 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,254.30 ft (382.311 m) above mean sea level. Prior to June 7, 1937, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--48 years, 124 ft^3/s or 3.512 m^3/s (16.19 in/yr or 411 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,750 ft^3/s (106 m^3/s) Dec. 26 (gage height, 9.57 ft or 2.917 m); minimum, 17 ft^3/s (0.48 m^3/s) Sept. 30 (gage height, 2.78 ft or 0.847 m).

Period of record: Maximum discharge, 8,000 ft^3/s (227 m^3/s) Jan. 23, 1935, from rating curve extended above 3,200 ft^3/s (90.6 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 12.48 ft (3.804 m) June 21, 1972; minimum discharge, 6.0 ft^3/s (0.17 m^3/s) Dec. 5, 1946, result of freezeup; minimum daily, 6.6 ft^3/s (0.19 m^3/s) Oct. 1, 1968; minimum gage height, 2.33 ft (0.710 m) July 28, Sept. 7, 1966.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 972: 1935-36(M), 1940(M). WSP 1203: 1928, 1935. WSP 1303: 1927(M), 1928, 1929-34(M), 1935. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	154	164	1,060	278	178	164	51	101	75	37	19
2	180	144	137	690	248	150	154	53	591	66	36	20
3	110	126	120	600	219	133	143	71	391	56	41	28
4	80	116	109	600	194	122	512	64	286	46	45	28
5	63	106	156	540	164	117	560	60	228	122	48	24
6	51	100	215	472	145	112	419	84	188	134	42	28
7	44	91	179	416	138	160	352	81	164	64	38	56
8	40	84	159	355	133	160	307	75	128	48	37	42
9	39	80	337	436	120	156	270	172	107	42	37	36
10	39	73	312	422	104	152	226	215	88	36	34	33
11	35	68	236	433	101	150	194	182	69	34	32	32
12	33	64	197	416	95	475	170	854	60	31	31	32
13	32	61	175	352	97	715	154	810	53	29	30	39
14	30	59	188	298	99	508	138	488	53	26	31	36
15	26	58	182	275	102	419	126	394	50	25	31	32
16	27	58	173	240	103	367	111	328	63	27	26	30
17	26	55	164	208	115	310	101	270	82	26	25	28
18	25	52	142	182	124	262	92	226	60	24	24	27
19	25	51	124	162	140	228	87	188	49	24	24	25
20	26	50	224	143	176	212	80	158	44	23	26	23
21	26	50	1,060	313	164	296	74	125	43	22	26	22
22	25	55	536	319	270	356	72	104	48	22	24	22
23	25	56	425	262	343	322	77	103	47	22	22	20
24	26	55	425	262	310	292	71	91	51	53	22	20
25	25	54	397	380	278	252	67	77	48	45	23	19
26	24	56	1,720	430	240	226	63	68	48	43	27	19
27	24	108	2,050	540	210	196	60	65	45	93	24	19
28	26	223	960	476	180	176	57	61	64	77	22	22
29	61	236	645	444	———	162	55	57	113	64	20	21
30	104	191	580	368	———	190	53	113	87	55	19	19
31	129	———	645	340	———	192	———	98	———	45	18	———
TOTAL	1,476	2,728	13,136	12,454	4,890	7,743	5,009	5,786	3,449	1,501	922	821
MEAN	47.6	90.9	424	402	175	250	167	187	115	48.4	29.7	27.4
MAX	180	236	2,050	1,060	343	715	560	854	591	134	48	56
MIN	24	50	109	143	95	112	53	51	43	22	18	19
CFSM	.46	.87	4.08	3.87	1.68	2.40	1.61	1.80	1.11	.47	.29	.26
IN	.53	.98	4.70	4.45	1.75	2.77	1.79	2.07	1.23	.54	.33	.29

CAL YR 1973 TOTAL 79,226 MEAN 217 MAX 3,570 MIN 22 CFSM 2.09 IN 28.34
WTR YR 1974 TOTAL 59,915 MEAN 164 MAX 2,050 MIN 18 CFSM 1.58 IN 21.43

PEAK DISCHARGE (BASE, 2,100 FT^3/S).--DEC. 26 (2330) 3,750 FT^3/S (9.57 FT).

02018000 CRAIG CREEK AT PARR, VA.

LOCATION.--Lat 37°39'57", long 79°54'42", Botetourt County, on right bank 12 ft (4 m) upstream from Chesapeake and Ohio Railway bridge, 700 ft (213 m) downstream from Stony Run, 0.2 mi (0.3 km) northeast of Horton, 0.4 mi (0.6 km) northwest of Parr, and 12 mi (19 km) upstream from mouth.

DRAINAGE AREA.--329 mi^2 (852 km^2).

PERIOD OF RECORD.--April 1925 to current year.

GAGE.--Water-stage recorder. Datum of gage is 992.50 ft (302.514 m) above mean sea level (levels by Corps of Engineers). Prior to June 7, 1937, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--49 years, 378 ft^3/s or 10.70 m^3/s (15.60 in/yr or 396 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,790 ft^3/s (192 m^3/s) Dec. 27 (gage height, 10.72 ft or 3.267 m); minimum, 63 ft^3/s (1.78 m^3/s) Sept. 2 (gage height, 3.58 ft or 1.091 m).

Period of record: Maximum discharge, 20,200 ft^3/s (572 m^3/s) June 21, 1972 (gage height, 19.29 ft or 5.880 m, from high-water mark in well); minimum daily, 25 ft^3/s (0.71 m^3/s) Sept. 4, 1966; minimum gage height, 3.15 ft (0.960 m) July 17, 18, 1966.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 852: 1937. WSP 892: 1935-36. WSP 1303: 1929-30(M), 1932-35(M), 1937-38(M). WRD Va. 1970: Drainage area

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	330	486	2,310	802	436	541	[illegible]	226	219	121	65
2	225	366	400	2,210	700	405	497	[illegible]	672	188	111	68
3	488	330	338	1,540	640	361	458	188	960	162	578	80
4	266	281	297	1,340	574	325	779	208	652	140	370	93
5	199	255	352	1,220	497	305	2,410	185	508	130	289	100
6	157	246	1,060	1,100	436	297	1,360	199	410	293	270	93
7	132	235	742	960	431	343	1,030	229	352	248	213	130
8	119	216	574	827	410	375	848	216	317	194	185	208
9	111	199	659	869	390	385	754	[illegible]	270	162	172	152
10	123	188	1,500	1,140	343	380	629	[illegible]	242	138	167	130
11	117	175	925	1,140	317	366	530	395	216	125	152	115
12	108	165	688	1,220	305	546	470	760	191	117	140	117
13	100	155	574	1,030	289	1,880	426	2,610	172	108	132	162
14	96	148	541	883	293	1,540	390	1,340	165	98	123	210
15	92	145	536	784	297	1,180	366	960	172	92	115	170
16	87	140	514	700	301	995	330	742	172	88	130	140
17	82	136	497	607	321	841	301	607	202	87	108	125
18	79	132	436	536	343	718	281	541	205	85	100	113
19	77	126	385	470	370	646	263	464	167	82	95	104
20	76	125	400	431	464	585	248	385	152	79	92	96
21	74	125	2,210	596	524	618	235	338	138	77	92	88
22	76	130	2,060	1,140	541	1,100	226	293	128	74	88	84
23	76	134	1,300	890	960	960	226	270	123	76	84	79
24	76	136	1,140	790	855	834	229	266	121	92	79	76
25	76	134	1,140	1,030	814	712	213	232	121	140	76	74
26	74	134	1,780	1,140	640	612	202	208	117	140	74	72
27	76	165	5,500	1,660	546	552	191	191	117	170	80	72
28	77	476	2,680	1,540	475	492	163	183	117	210	79	76
29	102	754	1,740	1,340	------	453	178	172	196	180	71	77
30	157	612	1,380	1,100	------	475	172	194	285	160	69	77
31	270	------	1,220	925	------	546	------	255	------	138	66	------
TOTAL	3,963	6,697	34,254	33,468	13,678	20,313	14,986	13,658	7,886	292	521	3,246
MEAN	128	230	1,105	1,080	496	655	500	441	263	138	146	108
MAX	488	754	5,500	2,310	960	1,880	2,410	2,610	960	293	578	210
MIN	74	125	297	431	289	297	172	165	117	74	66	65
CFSM	.39	.70	3.36	3.28	1.51	1.99	1.52	1.34	.80	.42	.44	.33
IN	.45	.78	3.87	3.78	1.57	2.30	1.69	1.54	.89	.49	.51	.37

CAL YR 1973 TOTAL 216,683 MEAN 594 MAX 6,120 MIN 66 CFSM 1.81 IN 24.50
WTR YR 1974 TOTAL 161,362 MEAN 442 MAX 5,500 MIN 65 CFSM 1.34 IN 18.25

PEAK DISCHARGE (BASE, 4,200 FT^3/S).--DEC. 27 (1030) 6,790 FT^3/S (10.72 FT).

02018500 CATAWBA CREEK NEAR CATAWBA, VA.

LOCATION.--Lat 37°28'05", long 80°00'20", Botetourt County, on right bank *40 ft (12 m) downstream from highway* bridge, 1.0 mi (1.6 km) downstream from Little Catawba Creek, 1.9 mi (3.1 km) west of Haymakertown, and 8.2 mi (13.2 km) northeast of Catawba.

DRAINAGE AREA.--34.3 mi² (88.8 km²).

PERIOD OF RECORD.--September 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,299.96 ft (396.228 m) above mean sea level. Prior to Aug. 1, 1953, nonrecording gage at site 80 ft (24 m) downstream at same datum.

AVERAGE DISCHARGE.--31 years, 35.6 ft³/s or 1.008 m³/s (14.09 in/yr or 358 mm/yr), adjusted for pumpage since October 1952.

EXTREMES.--Current year: Maximum discharge, 1,820 ft³/s (51.5 m³/s) July 26 (gage height, 5.58 ft or 1.701 m), from rating curve extended as explained below; minimum, 5.5 ft³/s (0.16 m³/s) Oct. 18, 24, 26-28, July 22, 23; minimum daily, 5.8 ft³/s (0.16 m³/s) Oct. 26, July 22; minimum gage height, 1.50 ft (0.457 m) Sept. 30.

Period of record: Maximum discharge, 7,740 ft³/s (219 m³/s) June 21, 1972 (gage height, 10.35 ft or 3.155 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.80 ft³/s (0.023 m³/s) Nov. 21, 1963; minimum daily, 0.90 ft³/s (0.025 m³/s) Nov. 22, 1963; minimum gage height, 0.54 ft (0.165 m) Sept. 7-11, 1944, site then in use.

Flood in August 1940 reached a stage of 13.26 ft (4.042 m), from information by observer.

REMARKS.--Records good. Lone Star Cement Co. pumps about 0.4 ft³/s (0.011 m³/s) below gage and returns it above gage pool. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1303: 1944-45(M). WRD Va. 1970: Drainage area. WRD Va. 1972: 1954, 1955(P), 1957-58(P), 1959, 1960-62(P), 1963, 1964(M), 1965-67(P), 1968(M), 1969, 1970(M), 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	14	246	75	41	51	17	19	14	10	7.4
2	92	10	12	142	66	37	46	19	22	12	83	10
3	30	8.9	11	114	61	34	44	21	17	10	231	14
4	17	8.0	10	104	53	31	271	18	15	9.1	84	12
5	12	9.4	131	89	46	29	247	19	13	9.3	104	9.1
6	9.8	9.9	75	79	44	30	140	21	12	13	51	23
7	8.6	6.8	41	69	42	33	104	19	14	49	37	45
8	11	8.0	30	59	41	30	87	19	13	17	38	24
9	12	7.8	161	78	37	29	74	20	12	13	43	19
10	13	7.1	101	77	34	28	61	19	11	11	34	16
11	9.3	6.9	58	97	33	29	53	17	10	9.9	27	23
12	8.3	6.8	43	93	32	89	48	136	9.6	9.0	24	19
13	7.6	6.7	38	78	34	146	44	114	9.4	8.1	21	24
14	7.3	6.6	36	68	37	103	45	65	15	7.4	18	17
15	6.9	6.5	31	62	30	83	41	48	14	7.1	17	15
16	6.5	6.6	30	54	36	72	36	39	15	6.9	15	13
17	6.1	6.2	29	48	39	60	34	34	19	6.5	14	12
18	6.1	6.1	26	42	46	53	32	30	13	6.7	13	11
19	6.2	6.2	23	39	51	49	30	26	11	6.7	12	10
20	6.2	6.0	65	36	56	46	28	25	10	6.4	12	9.7
21	6.2	6.4	266	144	50	111	26	22	9.7	6.1	11	9.3
22	6.1	7.3	127	110	73	110	25	20	9.1	5.8	10	9.0
23	6.1	6.7	90	85	72	85	26	20	8.9	6.3	9.6	8.6
24	6.0	6.5	97	76	65	73	23	18	8.7	12	9.2	9.2
25	5.9	6.4	79	92	59	61	22	16	8.2	9.5	10	8.0
26	5.8	6.6	387	123	50	54	21	15	8.0	158	11	7.7
27	5.9	33	359	172	45	48	20	15	8.6	86	8.9	7.6
28	6.8	27	155	148	42	44	19	14	21	31	8.2	9.1
29	14	22	113	130	------	43	19	13	31	19	7.7	7.3
30	13	16	94	106	------	60	18	18	18	16	7.4	6.6
31	12	------	129	89	------	57	------	15	------	12	7.4	------
TOTAL	375.9	293.4	2,863	2,949	1,355	1,799	1,737	912	405.2	593.8	988.4	413.6
MEAN	12.1	9.78	92.4	95.1	48.4	58.0	57.9	29.4	13.5	19.2	31.9	13.8
MAX	92	33	387	246	75	146	271	136	31	158	231	45
MIN	5.8	6.0	10	36	32	28	18	13	8.0	5.8	7.4	6.6
(*)	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
MEAN‡	11.7	9.38	92.0	94.7	48.0	57.6	57.5	29.0	13.1	18.8	31.5	13.4
CFSM‡	.34	.27	2.68	2.76	1.40	1.68	1.68	.85	.38	.55	.92	.39
IN‡	.39	.30	3.09	3.18	1.46	1.94	1.87	.98	.42	.63	1.06	.44

CAL YR 1973 TOTAL 20,536.5 MEAN 56.3 MAX 1,420 MIN 4.8 MEAN‡ 55.9 CFSM‡ 1.63 IN‡ 22.13
WTR YR 1974 TOTAL 14,685.3 MEAN 40.2 MAX 387 MIN 5.8 MEAN‡ 39.8 CFSM‡ 1.16 IN‡ 15.76

PEAK DISCHARGE (BASE, 600 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	1815	4.18	758	7-26	2115	5.58	1,820

* PUMPAGE, EQUIVALENT IN CUBIC FEET PER SECOND, BY LONE STAR CEMENT CO.
‡ ADJUSTED FOR PUMPAGE.

02019500 JAMES RIVER AT BUCHANAN, VA.

LOCATION.--Lat 37°31'50", long 79°40'45", Botetourt County, on left bank at Chesapeake and Ohio Railway station at Buchanan, 300 ft (91 m) upstream from bridge on U.S. Highway 11, 1,000 ft (305 m) upstream from Purgatory Creek, 1.5 mi (2.4 km) downstream from Looney Creek, and at mile 306.4.

DRAINAGE AREA.--2,075 mi^2 (5,374 km^2).

PERIOD OF RECORD.--February 1898 to current year. Monthly discharge only for some periods, published in WSP 1303. Records for August 1895 to Feb. 11, 1898, published in WSP 11, 15, and 27 are in error and should not be used. Gage-height records collected at this site since 1893 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 802.90 ft (244.724 m) above mean sea level. Prior to July 1, 1927, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--76 years, 2,467 ft^3/s or 69.87 m^3/s (16.15 in/yr or 410 mm/yr).

EXTREMES.--Current year: Maximum discharge, 73,400 ft^3/s (2,080 m^3/s) Dec. 27 (gage height, 24.17 ft or 7.367 m); minimum, 489 ft^3/s (13.8 m^3/s) Sept. 26, 27, 30; minimum gage height, 2.31 ft (0.704 m) Oct. 27, 28.

Period of record: Maximum discharge, 115,000 ft^3/s (3,260 m^3/s) Mar. 27, 1913 (gage height, 31 ft or 9.4 m, from floodmarks); minimum, 202 ft^3/s (5.72 m^3/s) Sept. 8, 1966 (gage height, 1.44 ft or 0.439 m).

Flood in November 1877 reached a stage of 34.9 ft (10.64 m), from floodmark (discharge, about 142,000 ft^3/s or about 4,020 m^3/s, from rating curve extended above 110,000 ft^3/s or 3,120 m^3/s).

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 602: 1917-24. WSP 972: 1935-36. WSP 1303: 1898-1916, 1917-20(M), 1922(M), 1924(M). WSP 1383: 1927. WRD Va. 1970: Drainage area. WRD Va. 1972: 1913 (M). See also PERIOD OF RECORD

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	625	2,620	3,070	9,670	4,340	2,460	3,370	1,250	1,850	1,440	835	568
2	1,180	3,100	2,400	9,350	3,800	2,400	2,980	1,220	3,990	1,230	733	584
3	2,300	2,600	1,980	7,180	3,510	2,250	2,740	1,310	15,500	1,080	1,300	733
4	1,890	1,930	1,710	6,380	3,200	2,160	3,820	1,360	7,690	972	1,750	850
5	1,330	1,620	1,940	6,290	2,840	2,060	10,700	1,360	4,610	874	1,470	776
6	1,060	1,640	4,560	5,730	2,540	2,000	8,310	1,360	3,340	922	1,350	726
7	906	1,770	4,710	5,050	2,390	2,080	6,040	1,360	2,700	1,500	1,130	1,090
8	873	1,590	3,350	4,330	2,340	2,430	4,820	1,350	2,300	1,380	989	1,280
9	886	1,450	3,710	4,310	2,270	2,540	4,340	1,410	1,970	1,170	997	1,190
10	901	1,360	5,610	5,820	2,100	2,500	3,900	2,870	1,760	972	1,010	964
11	1,020	1,350	4,290	12,000	1,940	2,390	3,320	3,430	1,600	882	914	828
12	966	1,220	3,330	15,100	1,840	3,260	2,950	5,830	1,420	820	850	1,270
13	847	1,130	2,760	9,820	1,790	9,270	2,750	28,300	1,280	754	798	1,140
14	775	1,070	2,530	6,860	1,770	8,370	2,630	13,200	1,210	698	740	906
15	723	1,020	2,730	5,480	1,770	6,350	2,550	7,160	1,200	664	698	835
16	651	987	2,750	4,660	1,760	5,170	2,380	5,060	1,200	647	658	765
17	644	944	2,640	3,960	1,780	4,630	2,160	3,950	1,410	641	684	705
18	616	925	2,400	3,390	1,800	4,170	2,000	3,250	1,760	658	641	558
19	605	910	2,070	2,950	1,820	3,750	1,890	2,850	1,360	635	635	524
20	595	888	2,230	2,700	1,890	3,750	1,780	2,540	1,160	595	607	595
21	595	878	14,900	3,900	2,020	4,450	1,680	2,200	1,070	584	607	573
22	592	886	18,600	6,940	2,160	10,000	1,590	1,950	1,070	573	601	551
23	589	871	8,860	6,160	4,540	8,070	1,590	1,840	997	562	579	535
24	583	881	6,380	5,120	4,950	6,020	1,640	1,790	980	677	670	520
25	582	860	5,490	6,860	4,000	4,810	1,610	1,650	1,180	906	579	509
26	576	855	10,500	9,200	3,430	3,920	1,510	1,510	1,140	1,220	562	494
27	562	970	60,000	9,430	2,890	3,400	1,430	1,360	1,070	2,030	545	489
28	568	1,820	28,100	8,720	2,580	3,020	1,370	1,290	1,030	1,230	530	504
29	815	4,770	11,800	7,280	------	2,770	1,330	1,240	1,160	1,150	540	530
30	1,220	4,390	8,430	6,020	------	2,820	1,290	1,330	1,580	1,010	545	504
31	2,120	------	7,340	5,040	------	3,390	------	1,590	------	997	601	------
TOTAL	28,225	47,305	241,170	205,700	74,060	126,660	90,470	108,170	70,587	29,473	25,148	22,300
MEAN	910	1,577	7,780	6,635	2,645	4,086	3,016	3,489	2,353	951	811	743
MAX	2,300	4,770	60,000	15,100	4,950	10,000	10,700	28,300	15,500	2,030	1,750	1,280
MIN	562	855	1,710	2,700	1,760	2,000	1,290	1,220	980	562	530	489
CFSM	.44	.76	3.75	3.20	1.27	1.97	1.45	1.68	1.13	.46	.39	.36
IN	.51	.85	4.32	3.69	1.33	2.27	1.62	1.94	1.27	.53	.45	.40

CAL YR 1973 TOTAL 1,371,655 MEAN 3,758 MAX 60,000 MIN 516 CFSM 1.81 IN 24.59
WTR YR 1974 TOTAL 1,069,268 MEAN 2,930 MAX 60,000 MIN 489 CFSM 1.41 IN 19.17

PEAK DISCHARGE (BASE, 21,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0130	13.86	26,000	5-13	1700	16.31	35,500
12-27	1900	24.17	73,400				

02020500 CALFPASTURE RIVER ABOVE MILL CREEK, AT GOSHEN, VA.

LOCATION.--Lat 37°59'16", long 79°29'38", Rockbridge County, on left bank 20 ft (6 m) upstream from bridge on State Highway 42 at Goshen and 400 ft (122 m) upstream from Mill Creek.

DRAINAGE AREA.--144 mi² (373 km²).

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,384.84 ft (422.099 m) above mean sea level.

AVERAGE DISCHARGE.--36 years, 158 ft³/s or 4.475 m³/s (14.90 in/yr or 378 mm/yr).

EXTREMES.--Current year: Maximum discharge, 17,600 ft³/s (498 m³/s) Dec. 26 (gage height, 12.19 ft or 3.716 m), from rating curve extended as explained below; minimum, 10 ft³/s (0.28 m³/s) Oct. 28.

Period of record: Maximum discharge, 20,900 ft³/s (592 m³/s) Oct. 6, 1972 (gage height, 12.78 ft or 3.895 m), from rating curve extended above 9,200 ft³/s (261 m³/s) on basis of slope-area measurement of peak flow; no flow Sept. 5, 6, 1957, and Sept. 28, 1959, result of diversion.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	179	127	283	212	110	276	57	434	61	12	13
2	42	194	103	272	185	112	240	57	1,750	55	12	13
3	30	145	85	268	166	105	198	65	1,470	50	13	15
4	28	106	75	272	144	99	470	63	619	43	14	38
5	23	92	403	276	120	98	773	59	290	40	15	33
6	18	87	811	268	106	98	503	60	240	40	13	30
7	16	81	370	252	100	110	289	59	164	94	12	43
8	18	75	232	212	98	105	202	57	117	57	14	51
9	22	75	274	223	93	105	260	69	97	46	15	48
10	26	92	326	702	85	110	212	98	84	40	13	42
11	30	83	247	1,370	82	110	182	112	74	40	14	45
12	25	69	191	960	78	209	161	1,080	66	33	13	55
13	22	61	161	591	76	285	150	2,320	51	31	13	50
14	19	56	147	380	74	288	137	671	62	26	20	43
15	18	52	135	285	71	285	122	317	53	26	19	38
16	16	48	135	260	68	283	105	256	58	23	18	35
17	14	44	127	212	66	286	94	182	63	20	17	32
18	14	40	119	172	65	284	86	139	58	19	16	28
19	14	38	99	147	65	281	81	110	50	17	17	25
20	14	35	326	132	66	284	76	89	47	17	19	23
21	13	34	3,280	299	65	734	71	78	44	15	17	21
22	13	33	1,090	641	74	1,020	67	70	41	15	17	19
23	13	32	509	452	166	575	81	66	39	15	16	17
24	12	30	355	317	192	344	77	62	54	19	14	16
25	12	29	270	514	182	281	71	55	52	16	15	15
26	11	29	5,910	536	152	219	67	51	80	16	15	15
27	11	35	5,520	498	130	182	64	49	83	15	13	14
28	12	56	1,100	416	118	150	61	46	72	13	13	16
29	45	125	591	299	------	132	59	43	69	14	15	15
30	119	147	398	282	------	166	57	47	67	14	17	13
31	125	------	285	248	------	281	------	57	------	13	15	------
TOTAL	838	2,202	23,801	12,039	3,099	7,739	5,372	6,544	6,468	943	466	861
MEAN	27.0	73.4	768	388	111	250	179	211	216	30.4	15.0	28.7
MAX	125	194	5,910	1,370	212	1,020	773	2,320	1,760	94	20	55
MIN	11	29	75	132	65	98	57	43	39	13	12	13
CFSM	.19	.51	5.33	2.69	.77	1.74	1.24	1.47	1.50	.21	.10	.20
IN	.22	.57	6.15	3.11	.80	2.00	1.39	1.69	1.67	.24	.12	.22

CAL YR 1973 TOTAL 90,845.9 MEAN 249 MAX 5,910 MIN 6.3 CFSM 1.73 IN 23.47
WTR YR 1974 TOTAL 70,372.0 MEAN 193 MAX 5,910 MIN 11 CFSM 1.34 IN 18.18

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1130	7.16	4,000	5-12	2400	8.03	5,470
12-26	2200	12.19	17,600	6- 2	1900	6.80	3,500

02021500 MAURY RIVER AT ROCKBRIDGE BATHS, VA.

LOCATION.--Lat 37°54'26", long 79°25'20", Rockbridge County, on right bank at Rockbridge Baths, 1,200 ft (370 m) upstream from bridge on State Highway 39, and 1.0 mi (1.6 km) upstream from Hays Creek.

DRAINAGE AREA.--329 mi² (852 km²).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1945, published as North River at Rockbridge Baths.

GAGE.--Water-stage recorder. Datum of gage is 1,100.33 ft (335.381 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--46 years, 362 ft³/s or 10.25 m³/s (14.94 in/yr or 379 mm/yr).

EXTREMES.--Current year: Maximum discharge, 20,300 ft³/s (575 m³/s) Dec. 27 (gage height, 11.05 ft or 3.368 m); minimum, 33 ft³/s (0.93 m³/s) July 23 (gage height, 1.11 ft or 0.338 m).

Period of record: Maximum discharge, 33,000 ft³/s (935 m³/s) Mar. 17, 1936 (gage height, 13.07 ft or 3.984 m), from rating curve extended above 16,000 ft³/s (453 m³/s); minimum, 5.8 ft³/s (0.16 m³/s) Sept. 10, 1966 (gage height, 0.79 ft or 0.241 m)

REMARKS.--Records good. Since 1966, some regulation at times by Lake Merriweather on Little Calfpasture River. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1929-40, 1941(M). WSP 1002: 1930(m). WSP 1553: 1931(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	324	231	1,010	578	297	777	122	636	155	39	74
2	93	352	183	874	504	281	660	123	2,350	134	38	76
3	111	230	171	799	460	259	556	167	2,410	116	40	89
4	107	164	135	791	400	239	1,180	151	1,150	101	44	157
5	107	148	450	745	336	226	1,920	138	678	89	47	134
6	97	185	1,280	686	298	228	1,290	151	454	96	44	127
7	68	179	702	616	290	279	938	143	343	161	41	289
8	62	156	335	521	283	264	779	137	278	126	46	170
9	81	130	559	568	262	251	726	181	232	101	52	158
10	123	131	889	1,210	233	252	588	265	205	89	49	140
11	109	122	622	2,690	216	251	499	274	180	87	46	139
12	129	106	459	2,290	203	482	448	1,690	149	76	46	140
13	99	95	377	1,590	205	774	429	5,060	129	70	49	161
14	76	97	357	1,090	204	815	399	1,910	140	65	47	119
15	90	100	328	840	187	755	353	1,140	137	61	51	98
16	98	84	308	677	179	716	282	789	152	57	46	85
17	103	76	305	556	178	755	245	595	158	54	46	76
18	89	70	260	457	168	690	225	485	143	51	44	71
19	86	66	226	395	165	658	209	440	116	49	46	62
20	90	62	732	352	172	740	196	343	108	47	47	58
21	82	60	5,610	957	159	1,550	182	281	103	46	46	55
22	56	63	2,970	1,620	243	2,430	171	241	96	44	47	51
23	47	59	1,440	1,160	497	1,470	211	240	96	35	44	47
24	57	58	1,000	979	480	1,030	200	213	126	56	47	44
25	90	56	770	1,320	441	758	174	180	129	52	43	42
26	78	54	6,310	1,340	373	604	158	155	171	55	46	41
27	65	68	10,800	1,320	321	516	149	144	220	54	51	40
28	55	141	3,040	1,180	296	444	142	130	194	49	57	45
29	136	316	1,830	1,010	------	402	135	120	194	44	99	44
30	243	298	1,310	814	------	522	129	144	174	49	89	39
31	252	------	969	682	------	925	------	157	------	44	83	------
TOTAL	3,023	4,050	44,956	31,139	8,331	19,866	14,350	16,309	11,651	2,314	1,560	2,871
MEAN	97.5	135	1,450	1,004	298	641	478	526	388	74.6	50.3	95.7
MAX	262	352	10,800	2,690	578	2,430	1,920	5,060	2,410	161	99	289
MIN	44	54	135	352	159	226	129	120	96	35	38	39
CFSM	.30	.41	4.41	3.05	.91	1.95	1.45	1.60	1.18	.23	.15	.29
IN	.34	.46	5.08	3.52	.94	2.25	1.62	1.84	1.32	.26	.18	.32

CAL YR 1973 TOTAL 208,250 MEAN 571 MAX 10,800 MIN 27 CFSM 1.74 IN 23.55
WTR YR 1974 TOTAL 160,420 MEAN 440 MAX 10,800 MIN 35 CFSM 1.34 IN 18.14

PEAK DISCHARGE (BASE, 4,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1330	7.45	6,540	5-13	0230	7.99	7,970
12-27	0230	11.05	20,300				

02022500 KERRS CREEK NEAR LEXINGTON, VA.

LOCATION.--Lat 37°49'32", long 79°26'36", Rockbridge County, on right bank 0.2 mi (0.3 km) upstream from bridge on State Highway 602, 1.4 mi (2.3 km) upstream from mouth, and 2.9 mi (4.7 km) north of Lexington.

DRAINAGE AREA.--35.0 mi² (90.6 km²).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 980.32 ft (298.802 m) above mean sea level (levels by Corps of Engineers). Jan. 27, 1927, to Sept. 30, 1953, nonrecording gage at site 1,000 ft (305 m) downstream at different datum.

AVERAGE DISCHARGE.--48 years, 35.3 ft³/s or 1.000 m³/s (13.70 in/yr or 348 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,220 ft³/s (62.9 m³/s) May 12 (gage height, 7.20 ft or 2.195 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s) on basis of slope-area measurements at gage heights 8.52 ft (2.597 m) and 13.38 ft (4.078 m); minimum, 8.0 ft³/s (0.23 m³/s) Oct. 27, 28.

Period of record: Maximum discharge, 23,000 ft³/s (651 m³/s) Sept. 10, 1950 (gage height, 13.8 ft or 4.21 m, from floodmarks, site and datum then in use), from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of contracted-opening and slope-area measurements of peak flow; minimum, 0.90 ft³/s (0.025 m³/s) July 22, 1966 (result of temporary dam upstream); minimum daily, 4.0 ft³/s (0.113 m³/s) many days in August and September 1932, Nov. 21, 1938, and July 22, 1966.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1203: 1927-29, 1930-34(M), 1935-40, 1941(M), 1942, 1943-48(M), 1949. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	13	13	147	53	33	49	24	22	15	18	16
2	26	11	12	92	48	30	52	24	135	14	16	18
3	13	10	11	77	45	29	50	31	78	14	16	76
4	10	9.5	10	71	42	28	212	26	50	13	24	49
5	9.2	14	43	62	39	27	126	26	38	13	26	29
6	8.6	13	33	55	37	27	82	29	33	14	18	39
7	8.4	11	23	52	36	29	61	26	29	14	16	76
8	10	11	19	46	34	29	54	25	26	13	26	41
9	10	10	73	83	33	29	46	36	26	13	29	32
10	13	9.8	46	112	31	28	38	33	27	12	26	26
11	10	9.5	33	159	29	30	34	30	30	12	21	29
12	9.8	9.5	26	114	28	63	32	384	23	12	19	24
13	9.2	9.2	24	83	28	71	30	172	23	11	26	23
14	8.6	9.2	24	68	28	58	34	78	24	11	18	20
15	8.4	9.2	22	61	26	50	41	49	23	11	16	18
16	8.4	9.2	21	53	27	46	33	37	24	11	15	17
17	8.1	8.9	19	45	27	41	31	29	23	11	15	16
18	8.3	8.6	18	40	27	38	29	26	20	10	14	16
19	8.1	8.6	17	37	26	39	27	26	19	10	15	15
20	8.1	8.6	192	34	26	40	25	24	18	10	14	14
21	8.1	8.6	468	178	26	116	24	21	18	11	14	14
22	8.1	9.2	114	103	55	98	23	20	18	10	14	13
23	8.1	8.9	74	77	52	76	28	20	21	10	14	13
24	8.1	8.6	63	95	44	64	26	18	22	22	13	12
25	8.1	8.6	50	134	40	54	27	19	18	13	13	12
26	8.1	9.2	634	110	33	48	26	18	18	26	13	12
27	8.0	12	308	109	33	43	26	18	17	32	12	11
28	8.6	17	128	92	31	39	25	17	18	25	16	12
29	23	20	90	80	------	38	25	16	18	32	32	12
30	13	14	77	68	------	54	24	23	16	87	18	11
31	12	------	82	59	------	58	------	20	------	24	15	------
TOTAL	317.6	318.9	2,707	2,596	984	1,453	1,340	1,345	875	536	562	716
MEAN	10.2	10.6	87.3	83.7	35.1	46.9	44.7	43.4	29.2	17.3	18.1	23.9
MAX	26	20	634	178	55	116	212	384	135	87	32	76
MIN	8.0	8.6	10	34	26	27	23	16	16	10	12	11
CFSM	.29	.30	2.49	2.39	1.00	1.34	1.28	1.24	.83	.49	.52	.68
IN	.34	.34	2.88	2.76	1.05	1.54	1.42	1.43	.93	.57	.60	.76

CAL YR 1973 TOTAL 17,419.7 MEAN 47.7 MAX 752 MIN 7.8 CFSM 1.36 IN 18.51
WTR YR 1974 TOTAL 13,750.5 MEAN 37.7 MAX 634 MIN 8.0 CFSM 1.08 IN 14.61

PEAK DISCHARGE (BASE, 600 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0700	5.23	744	5-12	1400	7.20	2,220
12-26	1530	6.24	1,490	7-29	2400	5.38	806

02024000 MAURY RIVER NEAR BUENA VISTA, VA.

LOCATION.--Lat 37°45'45", long 79°23'30", Rockbridge County, on right bank 0.5 mi (0.8 km) downstream from South River and 2.8 mi (4.5 km) northwest of Buena Vista.

DRAINAGE AREA.--646 mi² (1,673 km²).

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1945, published as North River near Buena Vista.

GAGE.--Water-stage recorder. Datum of gage is 846.58 ft (258.038 m) above mean sea level.

AVERAGE DISCHARGE.--36 years, 646 ft³/s or 18.29 m³/s (13.58 in/yr or 345 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,700 ft³/s (558 m³/s) Dec. 27 (gage height, 14.63 ft or 4.459 m); minimum, 130 ft³/s (3.68 m³/s) Oct. 1, July 22, 23, 24; minimum gage height, 1.37 ft (0.418 m) July 22, 23, 24.

Period of record: Maximum discharge, 105,000 ft³/s (2,970 m³/s) Aug. 20, 1969 (gage height, 31.23 ft or 9.159 m, from floodmarks), from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of slope-area measurement of peak flow; minimum, 20 ft³/s (0.57 m³/s) Oct. 10, 1941, occurred during filling of a small reservoir 2 mi (3 km) upstream; unqualified minimum, 37 ft³/s (1.05 m³/s) Sept. 9, 1966; minimum gage height, 1.19 ft (0.363 m) Oct. 6, 1970.

Flood of Mar. 18, 1936, reached a stage of about 22 ft (6.7 m), from information by local residents.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 952: 1940-41. WRD Va. 1970: Drainage area. WRD Va. 1971: 1970(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	405	385	2,230	1,140	592	1,200	355	672	296	173	302
2	326	495	322	1,850	1,020	560	1,040	356	2,250	272	162	291
3	304	410	278	1,590	972	528	929	423	3,280	251	174	846
4	229	308	266	1,490	881	496	1,810	397	1,710	229	280	1,030
5	212	313	430	1,350	781	472	3,090	368	1,050	212	284	621
6	203	317	1,840	1,250	717	470	2,250	396	799	216	197	509
7	180	335	1,090	1,140	699	509	1,700	372	631	238	178	1,250
8	194	304	718	997	673	516	1,420	352	555	273	210	800
9	180	266	922	1,170	637	479	1,320	402	490	224	270	638
10	243	247	1,250	1,430	585	474	1,110	492	441	211	237	529
11	226	243	931	3,430	554	478	965	491	400	197	197	524
12	219	229	721	3,200	524	678	882	1,920	369	188	195	449
13	219	215	611	2,360	507	1,100	841	6,320	351	175	229	470
14	188	203	605	1,770	510	1,120	815	2,870	370	155	208	428
15	168	212	568	1,430	479	1,080	958	1,770	370	160	197	366
16	191	203	535	1,210	465	1,010	754	1,290	375	155	176	330
17	188	188	539	1,030	465	1,050	682	1,020	390	150	166	303
18	191	180	457	899	446	985	633	885	329	146	159	283
19	178	178	442	806	433	933	588	872	292	143	171	265
20	175	173	1,350	739	435	1,040	550	701	277	140	171	249
21	178	170	8,310	1,950	418	1,630	513	603	268	136	158	237
22	165	173	4,880	2,720	578	3,280	488	540	259	133	167	228
23	148	170	2,480	2,090	858	2,160	525	531	263	131	151	214
24	140	168	1,770	1,810	854	1,600	515	505	296	226	154	204
25	165	165	1,350	2,200	789	1,250	469	441	298	196	146	197
26	175	168	6,120	2,250	711	1,020	436	398	288	259	206	193
27	165	180	13,600	2,220	636	911	416	379	353	221	360	189
28	158	206	4,790	2,030	589	814	399	357	348	271	207	197
29	286	395	2,950	1,800	------	761	385	337	339	300	345	197
30	344	445	2,250	1,510	------	880	369	392	322	688	332	182
31	395	------	1,830	1,300	------	1,270	------	381	------	212	275	------
TOTAL	6,471	7,664	64,590	53,271	18,356	30,145	28,052	25,916	18,425	6,814	6,535	12,621
MEAN	209	255	2,084	1,718	656	972	935	868	614	220	211	421
MAX	395	495	13,600	3,430	1,140	3,280	3,090	6,320	3,280	688	360	1,250
MIN	138	165	266	739	418	470	369	337	259	131	146	182
CFSM	.32	.39	3.23	2.66	1.02	1.50	1.45	1.34	.95	.34	.33	.65
IN	.37	.44	3.72	3.07	1.06	1.74	1.62	1.55	1.06	.39	.38	.73

CAL YR 1973 TOTAL 348,928 MEAN 956 MAX 13,600 MIN 118 CFSM 1.48 IN 20.09
WTR YR 1974 TOTAL 279,861 MEAN 767 MAX 13,600 MIN 131 CFSM 1.19 IN 16.12

PEAK DISCHARGE (BASE, 6,200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1230	10.36	9,950	5-13	0630	9.60	8,580
12-27	0530	14.63	19,700				

02025500 JAMES RIVER AT HOLCOMBS ROCK, VA.

LOCATION.--Lat 37°30'04", long 79°15'46", Bedford County, on right bank at Holcombs Rock 0.9 mi (1.4 km) downstream from Pedlar River and at mile 268.6.

DRAINAGE AREA.--3,259 mi² (8,441 km²).

PERIOD OF RECORD.--January 1900 to September 1915 (gage heights only), October 1926 to current year. Published as "at Salt Creek" December 1926 to June 1931. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 548.53 ft (167.192 m) above mean sea level. January 1900 to September 1915, nonrecording gage in powerhouse of Owens Illinois Glass Company 1,000 ft (305 m) upstream at different datum. December 1926 to June 1931, water-stage recorder at site 2 mi (3.2 km) downstream at different datum.

AVERAGE DISCHARGE.--48 years (1926-74), 3,551 ft³/s or 100.6 m³/s (14.80 in/yr or 376 mm/yr).

EXTREMES.--Current year: Maximum discharge, 74,000 ft³/s (2,100 m³/s) Dec. 27 (gage height, 24.69 ft or 7.526 m); minimum, 146 ft³/s (4.13 m³/s) Oct. 7 (gage height, 3.34 ft or 1.018 m); minimum daily, 690 ft³/s (19.6 m³/s) Oct. 1.

Period of record: Maximum discharge, 150,000 ft³/s (4,250 m³/s) Aug. 20, 1969 (gage height, 35.50 ft or 10.820 m), from rating curve extended above 73,000 ft³/s (2,070 m³/s) on basis of records for other stations in James River basin; minimum, 71 ft³/s (2.01 m³/s) Oct. 24, 1963; minimum daily, 223 ft³/s (6.32 m³/s) July 28, 1930; minimum gage height, 2.91 ft (0.887 m) Oct. 5, 1970.

Flood in March 1913 reached a stage of 31.3 ft (9.540 m), from floodmarks (discharge, 118,000 ft³/s or 3,340 m³/s, from rating curve extended as explained above).

REMARKS.--Records good. Large diurnal fluctuation caused by powerplants above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 972: 1913(M), 1932-33, 1935(M), 1936. WSP 1303: 1928(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	690	3,150	3,930	13,000	6,420	3,610	5,120	2,100	2,650	2,190	1,400	1,030
2	2,650	3,460	3,120	13,600	5,600	3,420	4,620	2,070	4,500	1,840	1,180	1,100
3	2,690	3,530	2,630	10,500	5,120	3,310	4,190	2,210	16,600	1,650	1,270	1,280
4	2,930	2,770	2,200	8,990	4,740	3,150	5,520	2,270	12,700	1,490	2,190	2,450
5	2,000	2,340	2,650	8,460	4,220	3,050	15,200	2,280	6,440	1,390	2,550	2,010
6	1,550	2,170	5,150	7,650	3,850	2,940	13,900	2,360	4,350	1,360	1,980	1,930
7	1,270	2,270	7,050	6,960	3,710	2,960	9,710	2,280	3,900	1,570	1,750	3,920
8	1,260	2,220	4,730	6,040	3,570	3,140	7,620	2,240	3,370	1,950	1,570	3,090
9	1,240	2,060	5,260	6,100	3,440	3,310	6,660	2,340	3,020	1,770	1,680	2,540
10	1,190	1,820	7,490	7,460	3,250	3,310	5,940	2,990	2,690	1,450	1,600	2,180
11	1,190	1,750	6,500	13,300	3,060	3,250	5,090	4,480	2,450	1,350	1,470	1,980
12	1,350	1,680	4,830	20,100	2,900	3,650	4,530	5,020	2,250	1,250	1,320	1,520
13	1,250	1,540	4,020	14,800	2,840	8,740	4,190	32,500	1,930	1,110	1,350	2,420
14	1,170	1,440	3,690	10,200	2,780	10,900	4,050	23,000	1,930	1,100	1,240	1,890
15	924	1,390	3,600	7,920	2,750	8,380	4,050	11,200	1,450	1,040	1,230	1,620
16	927	1,290	3,750	6,680	2,720	6,820	3,740	7,600	1,850	990	1,170	1,450
17	898	1,270	3,700	5,370	2,750	6,100	3,420	5,760	2,010	960	1,000	1,340
18	851	1,190	3,410	4,650	2,730	5,560	3,210	4,760	2,270	940	1,040	1,220
19	846	1,190	3,120	4,250	2,730	5,030	3,030	4,220	2,240	930	1,050	1,130
20	831	1,160	4,540	3,920	2,730	4,960	2,900	3,770	1,800	940	1,120	1,110
21	814	1,120	25,200	7,310	2,820	5,900	2,760	3,390	1,670	900	1,010	1,060
22	804	1,130	29,900	11,200	3,200	12,500	2,640	3,030	1,640	850	990	1,010
23	795	1,150	15,000	10,400	4,800	12,300	2,660	2,980	1,590	830	970	960
24	729	1,130	10,000	8,170	6,680	8,820	2,630	2,750	1,510	870	930	930
25	750	1,100	9,000	9,290	5,500	6,940	2,640	2,590	1,530	1,090	950	859
26	771	1,120	12,800	12,600	4,710	5,640	2,490	2,330	1,750	1,570	960	822
27	804	1,160	62,900	13,100	4,130	4,920	2,390	2,190	1,710	3,250	1,090	821
28	799	1,400	44,100	12,600	3,710	4,350	2,310	2,050	1,720	2,090	1,100	813
29	1,120	3,560	16,500	10,700	------	4,010	2,240	1,970	1,720	1,720	970	824
30	1,550	5,250	11,000	8,890	------	4,060	2,150	2,070	1,900	2,490	1,040	826
31	2,200	------	9,790	7,440	------	4,740	------	2,190	------	1,630	1,050	------
TOTAL	38,903	58,150	330,570	292,050	107,450	169,670	141,590	154,010	98,550	44,520	40,210	46,630
MEAN	1,255	1,938	10,660	9,421	3,838	5,473	4,720	4,968	3,285	1,436	1,297	1,554
MAX	2,930	5,250	62,900	20,100	6,680	12,500	15,200	32,500	16,600	3,250	2,550	3,920
MIN	690	1,100	2,200	3,920	2,720	2,940	2,150	1,970	1,510	830	930	813
CFSM	.39	.59	3.27	2.89	1.18	1.68	1.45	1.52	1.01	.44	.40	.48
IN	.44	.66	3.77	3.33	1.23	1.94	1.62	1.75	1.12	.51	.46	.53

CAL YR 1973 TOTAL 1,975,347 MEAN 5,412 MAX 62,900 MIN 651 CFSM 1.66 IN 22.55
WTR YR 1974 TOTAL 1,522,313 MEAN 4,171 MAX 62,900 MIN 690 CFSM 1.28 IN 17.38

PEAK DISCHARGE (BASE, 25,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0445	17.20	35,800	5-13	2030	18.19	39,900
12-27	1530	24.69	74,000				

02026000 JAMES RIVER AT BENT CREEK, VA.

LOCATION.--Lat 37°32'10", long 78°49'30", Nelson County, on left bank at town of Bent Creek, 150 ft (46 m) downstream from Bent Creek, 575 ft (175 m) upstream from bridge on U.S. Highway 60, 1.3 mi (2.1 km) southeast of Gladstone, and at mile 227.8.

DRAINAGE AREA.--3,683 mi² (9,539 km²).

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to 1926, published as "at Bent Creek, near Gladstone."

GAGE.--Water-stage recorder. Datum of gage is 381.39 ft (116.248 m) above mean sea level. Prior to Sept. 12, 1930, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--50 years, 4,180 ft³/s or 118.4 m³/s (15.41 in/yr or 391 mm/yr).

EXTREMES.--Current year: Maximum discharge, 71,500 ft³/s (2,020 m³/s) Dec. 28 (gage height, 18.00 ft or 5.486 m); minimum daily, 852 ft³/s (24.1 m³/s) Aug. 25.

Period of record: Maximum discharge, 176,000 ft³/s (4,980 m³/s) June 21, 1972 (gage height, 27.13 ft or 8.269 m, from high-water mark in gage house), from rating curve extended above 89,000 ft³/s (2,520 m³/s) on basis of velocity-area studies and records for other stations in James River basin; minimum, 222 ft³/s (6.29 m³/s) Oct. 13, 14, 1930 (gage height, 2.21 ft or 0.674 m); minimum daily, 222 ft³/s (6.29 m³/s) Oct. 13, 1930.

REMARKS.--Records fair. Large diurnal fluctuation caused by powerplants above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 742: 1931(m). WSP 972: 1935-36. WSP 1066: 1940. WSP 1203: 1942. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,390	4,130	5,590	14,300	8,630	4,970	6,610	3,000	3,530	2,980	2,020	1,210
2	3,740	4,350	4,760	15,800	7,880	5,240	6,250	2,980	5,250	2,750	1,650	1,150
3	4,540	5,220	4,220	13,500	7,420	4,920	6,150	3,220	11,700	2,620	1,530	2,900
4	4,450	4,420	3,550	11,800	6,570	4,870	7,510	3,150	16,800	2,000	2,880	3,560
5	3,400	3,760	3,790	11,100	6,420	4,550	5,100	2,980	8,950	2,190	4,530	2,610
6	2,710	3,360	5,390	10,600	6,310	4,520	16,700	3,340	6,890	2,400	3,220	3,990
7	2,290	3,170	7,550	9,840	5,660	4,410	12,300	3,090	5,610	1,740	2,330	10,500
8	2,320	3,660	7,150	8,810	5,630	4,540	10,300	3,080	4,650	2,670	2,000	4,690
9	2,120	3,140	7,710	8,480	5,420	4,720	8,820	3,270	3,940	2,550	2,160	3,250
10	2,000	2,970	7,720	9,230	5,180	4,900	8,030	4,970	4,160	2,400	2,070	2,890
11	1,900	2,470	8,210	11,800	4,800	4,900	7,460	4,940	4,230	2,140	2,020	2,790
12	2,140	2,580	7,390	20,100	4,680	5,040	6,500	5,800	3,480	2,190	1,530	2,230
13	2,030	2,390	5,940	17,400	4,640	7,240	5,950	23,200	3,200	1,710	1,710	2,760
14	2,090	2,180	5,330	13,000	4,430	12,800	5,730	24,100	2,290	1,470	1,670	2,180
15	1,790	2,190	5,120	10,600	4,500	10,700	5,660	13,800	3,030	1,590	1,550	2,340
16	1,500	2,130	5,230	9,120	4,230	9,310	5,090	9,170	2,750	1,530	1,450	1,990
17	1,630	2,330	5,290	8,130	4,330	7,920	4,900	7,270	2,520	1,320	1,390	1,780
18	1,670	2,310	4,950	7,580	4,360	7,620	4,450	6,610	3,320	1,290	1,200	1,630
19	1,450	1,440	4,550	6,580	4,630	7,380	4,330	5,630	3,220	1,420	1,210	1,520
20	1,590	1,840	4,590	6,020	4,630	6,660	4,110	5,430	2,850	1,250	1,390	1,560
21	1,450	1,920	23,000	9,060	4,380	7,920	3,940	4,650	2,620	1,360	1,360	1,190
22	1,450	1,890	32,400	13,100	4,500	11,700	3,680	4,450	2,140	1,240	1,450	1,590
23	1,610	1,940	19,400	12,900	5,780	14,900	3,650	3,940	2,550	1,330	1,190	1,270
24	1,370	1,800	13,100	10,500	7,810	11,300	3,820	3,720	2,160	1,630	1,200	1,420
25	1,390	1,840	10,600	10,700	7,730	9,130	3,530	3,410	2,330	1,060	852	949
26	1,490	1,860	9,490	13,700	7,140	7,890	3,480	3,480	2,390	1,890	1,050	1,270
27	1,470	1,960	45,500	14,800	6,100	7,080	3,200	3,290	2,400	5,360	1,560	947
28	1,400	2,280	58,900	14,300	5,560	6,330	3,100	3,050	2,670	3,550	1,330	1,130
29	3,010	3,740	23,700	12,900	------	5,930	3,360	2,430	2,280	2,570	1,390	1,160
30	2,750	6,440	16,200	11,300	------	6,000	2,840	2,880	2,480	2,340	1,140	1,150
31	2,310	------	13,300	9,740	------	6,380	------	2,740	------	2,190	1,050	------
TOTAL	66,450	85,710	379,620	356,790	159,350	221,770	186,550	182,060	126,410	65,350	53,072	69,706
MEAN	2,144	2,857	12,250	11,510	5,691	7,154	6,218	5,873	4,214	2,108	1,712	2,324
MAX	4,540	6,440	58,900	20,100	8,630	14,900	16,700	24,100	16,800	5,360	4,530	10,500
MIN	1,370	1,440	3,550	6,020	4,230	4,410	2,840	2,430	2,140	1,050	852	947
CFSM	.58	.78	3.33	3.13	1.55	1.94	1.69	1.59	1.14	.57	.46	.63
IN.	.57	.87	3.83	3.60	1.61	2.24	1.88	1.84	1.28	.66	.54	.70

CAL YR 1973 TOTAL 2,463,650 MEAN 6,750 MAX 58,900 MIN 1,220 CFSM 1.83 IN 24.88
WTR YR 1974 TOTAL 1,952,848 MEAN 5,350 MAX 58,900 MIN 852 CFSM 1.45 IN 19.72

PEAK DISCHARGE (BASE, 26,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0845	12.13	34,600	5-14	0400	12.68	37,400
12-28	0645	18.00	71,500				

02027000 TYE RIVER NEAR LOVINGSTON, VA.

LOCATION.--Lat 37°42'55", long 78°58'55", Nelson County, on right bank at downstream side of bridge on State Highway 158, 3.5 mi (5.6 km) downstream from Hat Creek, 4.8 mi (7.7 km) upstream from Piney River, and 6.8 mi (10.9 km) southwest of Lovingston.

DRAINAGE AREA.--92.8 mi² (240.4 km²).

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 578.39 ft (176.293 m) above mean sea level. Sept. 15, 1969, to Oct. 15, 1970, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 152 ft³/s or 4.305 m³/s (22.24 in/yr or 565 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,390 ft³/s (67.7 m³/s) May 12 (gage height, 5.97 ft or 1.820 m, from high-water mark); minimum, 29 ft³/s (0.82 m³/s) July 23 (gage height, 0.60 ft or 0.183 m).

Period of record: Maximum discharge, 80,000 ft³/s (2,270 m³/s) Aug. 20, 1969 (gage height, 29.0 ft or 8.84 m, from floodmarks), from rating curve extended above 7,600 ft³/s (215 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.50 ft³/s (0.014 m³/s) Sept. 10, 11, 1966; minimum gage height, 0.29 ft (0.088 m) Oct. 4, 1943.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 892: 1938. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	133	62	522	252	192	189	120	147	55	42	106
2	316	108	60	428	240	172	184	126	299	49	212	105
3	182	97	59	381	242	165	177	153	206	47	367	168
4	101	88	59	349	223	153	394	122	168	44	264	214
5	65	120	391	304	206	148	615	120	149	68	310	158
6	48	112	342	277	204	148	540	139	138	72	209	237
7	44	99	237	256	213	151	428	118	126	70	170	524
8	67	90	194	237	201	142	385	112	117	52	221	338
9	56	84	382	325	189	135	342	170	109	47	287	263
10	59	76	259	280	177	131	288	148	99	56	244	242
11	52	73	218	301	175	137	266	135	91	68	197	258
12	47	70	187	288	168	184	249	833	88	49	173	197
13	44	69	175	274	165	172	244	958	80	43	158	185
14	42	66	194	259	158	158	235	562	80	39	131	158
15	39	63	172	249	151	153	256	406	91	39	173	145
16	37	60	160	235	151	153	230	317	97	36	128	128
17	35	59	148	220	148	153	218	266	132	35	113	117
18	34	56	137	206	142	142	208	250	84	35	99	111
19	34	55	128	194	142	146	199	228	72	34	111	101
20	34	54	643	187	139	180	187	201	72	34	99	93
21	34	54	1,690	824	133	270	177	185	67	32	82	89
22	33	57	945	562	251	259	170	175	64	31	142	82
23	33	52	585	446	261	242	184	168	74	30	107	76
24	33	51	432	385	232	230	163	152	91	69	113	73
25	32	50	338	368	218	211	156	135	68	54	156	72
26	31	51	793	346	199	201	146	124	72	183	126	68
27	30	66	1,370	368	189	189	139	128	70	113	140	67
28	38	67	845	334	184	180	133	115	67	70	115	72
29	243	75	608	314	------	175	131	107	70	56	206	68
30	120	63	477	288	------	208	122	133	59	73	122	61
31	110	------	446	269	------	216	------	113	------	51	101	------
TOTAL	2,110	2,218	12,736	10,276	5,353	5,496	7,355	7,019	3,147	1,734	5,118	4,576
MEAN	68.1	73.9	411	331	191	177	245	226	105	55.9	165	153
MAX	316	133	1,690	824	261	270	615	958	299	183	367	524
MIN	30	50	59	187	133	131	122	107	59	30	42	61
CFSM	.73	.80	4.43	3.57	2.06	1.91	2.64	2.44	1.13	.60	1.78	1.65
IN	.85	.89	5.11	4.12	2.15	2.20	2.95	2.81	1.26	.70	2.05	1.83

CAL YR 1973 TOTAL 82,964 MEAN 227 MAX 1,930 MIN 22 CFSM 2.45 IN 33.26
WTR YR 1974 TOTAL 67,138 MEAN 184 MAX 1,690 MIN 30 CFSM 1.98 IN 26.91

PEAK DISCHARGE (BASE, 1,600 FT³/S) A ABOUT.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1000	5.29	1,970	5-12	A1900	5.97	2,390
12-26	1500	5.11	1,860	8- 2	2000	5.46	2,090

02027500 PINEY RIVER AT PINEY RIVER, VA.

LOCATION.--Lat 37°42'08", long 79°01'40", Nelson County, on left bank at upstream side of bridge on State Highway 151, 0.2 mi (0.3 km) southwest of Piney River Post Office, 1.7 mi (2.7 km) downstream from Indian Creek, and 2.5 mi (4.0 km) southeast of Lowesville.

DRAINAGE AREA.--47.6 mi^2 (123.3 km^2).

PERIOD OF RECORD.--July 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 633.58 ft (193.115 m) above mean sea level. Prior to May 27, 1969, water-stage recorder, and Nov. 4, 1969, to Feb. 26, 1970, nonrecording gage at site 20 ft (6 m) downstream from former highway bridge at same datum. Feb. 26, 1970, to Sept. 20, 1973, on right bank 20 ft (6 m) upstream from bridge at same datum.

AVERAGE DISCHARGE.--25 years, 92.9 ft^3/s or 2.631 m^3/s (26.50 in/yr or 673 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,340 ft^3/s (37.9 m^3/s) Dec. 21 (gage height, 4.17 ft or 1.271 m); minimum, 9.0 ft^3/s (0.25 m^3/s) Oct. 1 (gage height, 0.30 ft or 0.091 m).

Period of record: Maximum discharge, 38,000 ft^3/s (1,080 m^3/s) Aug. 20, 1969 (gage height, 13.8 ft or 4.21 m, from floodmarks), from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft^3/s (0.031 m^3/s) Sept. 13, 1966; minimum gage height, 0.30 ft (0.091 m) Oct. 1, 1973.

Flood in June 1949 reached a stage of 9.9 ft (3.02 m), from floodmarks.

REMARKS.--Records good. Periodic dewatering of upstream quarries adds small amount of inflow. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WRD Va. 1970: Drainage area. WRD Va. 1972: 1971(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	82	38	297	167	102	96	58	65	31	28	54
2	187	82	38	275	158	92	94	62	132	29	31	55
3	108	80	39	256	151	87	90	71	98	28	62	89
4	74	74	38	239	138	83	189	58	90	25	77	122
5	59	94	176	212	124	78	294	60	85	32	104	108
6	51	82	216	188	118	78	320	67	81	50	71	154
7	45	77	176	172	118	78	275	58	76	40	62	258
8	65	74	154	155	114	73	251	58	70	40	104	220
9	47	71	239	191	106	70	224	81	64	28	128	181
10	122	66	202	169	100	67	198	73	60	30	124	151
11	71	62	174	179	96	75	176	71	55	31	102	130
12	60	59	154	174	90	94	162	382	51	25	87	112
13	54	55	142	169	89	87	153	489	49	23	75	100
14	49	51	136	167	87	81	149	333	48	21	61	81
15	44	49	120	158	79	79	132	268	49	20	70	71
16	40	46	116	149	81	81	124	222	55	19	57	64
17	38	43	110	136	78	78	114	186	61	18	52	58
18	36	42	101	126	75	76	108	167	46	17	48	55
19	35	39	95	118	73	78	102	149	42	17	54	50
20	33	38	336	110	73	90	94	128	41	16	46	47
21	31	38	1,120	307	68	134	89	116	39	15	40	44
22	31	38	620	287	106	138	85	104	38	14	46	41
23	30	35	397	260	112	140	90	100	38	14	39	39
24	29	35	302	241	116	136	79	89	43	39	40	38
25	28	34	251	229	116	128	75	78	37	29	44	37
26	26	33	498	220	110	120	71	71	38	64	44	36
27	26	38	900	222	106	114	70	71	35	61	45	35
28	32	40	535	215	102	106	67	64	37	36	45	37
29	99	42	394	208	------	104	64	61	39	44	84	34
30	66	39	317	193	------	118	61	70	33	64	52	30
31	66	------	297	181	------	104	------	60	------	35	46	------
TOTAL	1,699	1,638	8,431	6,203	2,951	2,969	4,096	3,925	1,695	955	1,968	2,531
MEAN	54.8	54.6	272	200	105	95.8	137	127	56.5	30.8	63.5	84.4
MAX	187	94	1,120	307	167	140	320	489	132	64	128	258
MIN	17	33	38	110	68	67	61	58	33	14	28	30
CFSM	1.15	1.15	5.71	4.20	2.21	2.01	2.88	2.67	1.19	.65	1.33	1.77
IN	1.33	1.28	6.59	4.85	2.31	2.32	3.20	3.07	1.32	.75	1.54	1.98

CAL YR 1973 TOTAL 51,911.1 MEAN 142 MAX 1,410 MIN 4.1 CFSM 2.98 IN 40.57
WTR YR 1974 TOTAL 39,061.0 MEAN 107 MAX 1,120 MIN 14 CFSM 2.25 IN 30.53

PEAK DISCHARGE (BASE, 650 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0800	4.17	1,340	5-12	1700	3.56	982
12-27	0100	3.73	1,100				

02027800 BUFFALO RIVER NEAR TYE RIVER, VA.

LOCATION.--Lat 37°36'20", long 78°55'25", Nelson County, on right bank 70 ft (21 m) downstream from bridge on State Highway 657, 2.1 mi (3.4 km) upstream from mouth, and 3.5 mi (5.6 km) southeast of town of Tye River.

DRAINAGE AREA.--147 mi² (381 km²).

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 444.39 ft (135.450 m) above mean sea level.

AVERAGE DISCHARGE.--14 years, 163 ft³/s or 4.616 m³/s (15.06 in/yr or 383 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,500 ft³/s (99.1 m³/s) Dec. 21 (gage height, 8.70 ft or 2.652 m), from rating curve extended as explained below; minimum, 53 ft³/s (1.50 m³/s) July 23 (gage height, 1.31 ft or 0.399 m).
Period of record: Maximum discharge, 45,000 ft³/s (1,270 m³/s) Aug. 20, 1969 (gage height, 27.95 ft or 8.519 m, from floodmark), from rating curve extended above 1,800 ft³/s (51.0 m³/s) on basis of computation of flow over dam at gage height 11.03 ft (3.362 m) and slope-area measurement at gage height 27.95 ft (8.519 m); minimum, 3.2 ft³/s (0.091 m³/s) Sept. 8-13, 1966; minimum gage height, 0.28 ft (0.085 m) Sept. 9-13, 1964.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	127	82	501	292	199	219	152	225	105	91	91
2	388	111	78	387	278	188	209	152	352	99	87	152
3	219	105	77	345	275	180	196	209	258	93	120	183
4	125	100	77	337	258	175	622	165	204	87	363	227
5	102	134	202	309	230	170	856	155	180	87	461	170
6	89	130	260	286	225	173	620	204	170	138	188	453
7	82	112	182	261	261	178	471	165	165	135	155	1,010
8	135	107	154	235	243	170	415	15	157	99	158	401
9	121	107	656	350	227	165	401	21	152	89	251	292
10	137	98	365	339	212	162	345	318	143	81	217	238
11	123	94	248	331	209	165	314	196	140	83	170	253
12	105	94	202	320	204	261	297	300	124	79	150	193
13	96	94	184	286	209	272	286	462	120	71	178	175
14	1	93	196	269	204	222	275	325	126	67	133	157
15	4	89	164	256	196	204	269	272	133	65	201	143
16	78	89	150	243	196	194	240	240	145	61	129	135
17	75	34	142	227	214	196	230	219	170	61	118	129
18	74	82	130	214	209	180	219	243	131	61	107	124
19	75	82	125	206	204	178	212	260	118	59	105	115
20	75	80	433	199	204	196	201	209	115	59	109	109
21	74	82	2,530	976	183	377	196	183	120	55	95	105
22	74	93	800	631	219	342	196	175	118	55	129	101
23	74	84	530	443	235	275	204	175	115	55	105	95
24	72	82	415	373	214	251	183	173	124	130	93	93
25	70	85	342	415	209	230	180	160	111	103	87	93
26	69	82	442	448	193	19	178	150	133	174	85	93
27	70	102	781	471	191	12	173	167	126	311	99	89
28	77	130	530	401	191	201	170	155	133	129	85	93
29	330	132	429	373	------	196	167	147	129	99	124	95
30	154	89	387	337	------	258	157	167	115	175	138	83
31	121	------	359	311	------	260	------	160	------	107	95	------
TOTAL	3,519	2,973	11,652	11,080	6,185	6,654	8,701	6,427	4,552	3,072	4,626	5,690
MEAN	114	99.1	376	357	221	215	290	207	152	99.1	149	190
MAX	388	134	2,530	976	292	377	856	462	352	311	461	1,010
MIN	60	80	77	199	183	162	157	147	111	55	85	83
CFSM	.78	.67	2.56	2.43	1.50	1.46	1.97	1.41	1.03	.67	1.01	1.29
IN	.89	.75	2.95	2.80	1.57	1.68	2.20	1.63	1.15	.78	1.17	1.44

CAL YR 1973 TOTAL 88,251 MEAN 242 MAX 2,530 MIN 48 CFSM 1.65 IN 22.33
WTR YR 1974 TOTAL 75,131 MEAN 206 MAX 2,530 MIN 55 CFSM 1.40 IN 19.01

PEAK DISCHARGE (BASE, 1,400 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1230	8.70	3,500	9- 7	0130	6.92	1,940
1-21	1430	7.15	2,160				

02028500 ROCKFISH RIVER NEAR GREENFIELD, VA.

LOCATION.--Lat 37°52'10", long 78°49'25", Nelson County, on left bank 50 ft (15 m) downstream from bridge on State Highway 634, 2.8 mi (4.5 km) downstream from confluence of North and South Forks, and 4.1 mi (6.6 km) south of Greenfield.

DRAINAGE AREA.--94.6 mi² (245.0 km²).

PERIOD OF RECORD.--April 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 530.29 ft (161.632 m) above mean sea level. Prior to Aug. 21, 1943, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 138 ft³/s or 3.908 m³/s (19.81 in/yr or 503 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,190 ft³/s (62.0 m³/s) Dec. 26 (gage height, 6.15 ft or 1.875 m); minimum daily, 29 ft³/s (0.82 m³/s) Oct. 1, July 23.

Period of record: Maximum discharge, 70,000 ft³/s (1,980 m³/s) Aug. 20, 1969 (gage height, 31.2 ft or 9.51 m, from floodmarks), from rating curve extended above 8,500 ft³/s (241 m³/s) on basis of one contracted-opening measurement at gage height 18.11 ft (5.520 m), three slope-area measurements at gage heights 17.2 ft (5.24 m), 23.4 ft (7.13 m), and 31.2 ft (9.51 m), and peak runoff comparison with nearby stations; minimum, 0.20 ft³/s (0.006 m³/s) Sept. 8-12, 1966.

Flood of Oct. 15, 1942, reached a stage of 23.4 ft (7.13 m), from floodmarks (discharge, about 30,000 ft³/s or about 850 m³/s).

REMARKS.--Records good prior to June 19, 1974, and poor thereafter.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	107	54	419	213	141	150	107	133	60	35	85
2	326	102	52	323	207	135	146	108	215	54	150	80
3	123	85	51	299	202	130	141	122	163	50	350	100
4	76	72	50	272	190	127	242	108	136	48	200	125
5	66	120	400	240	200	123	382	107	120	45	300	90
6	52	105	256	221	173	123	346	116	112	110	200	250
7	53	90	163	207	177	122	276	105	105	106	150	600
8	64	80	132	193	169	116	250	102	99	65	200	400
9	49	76	675	216	162	113	233	126	91	45	280	250
10	46	72	300	210	157	110	201	115	83	55	230	180
11	45	68	197	213	154	114	187	107	75	70	190	130
12	42	66	160	204	150	138	177	632	72	60	160	108
13	39	62	148	194	146	135	173	694	69	50	140	95
14	38	60	143	191	145	128	192	369	68	42	110	82
15	35	58	127	187	143	124	218	260	74	41	160	75
16	34	56	123	180	143	123	187	208	82	40	130	70
17	32	53	122	173	144	121	177	176	103	38	95	65
18	32	52	114	166	141	117	169	158	78	37	80	62
19	32	51	104	163	141	120	161	147	75	35	100	57
20	32	50	640	158	141	130	153	133	70	33	80	54
21	32	50	1,540	707	135	203	146	122	66	31	70	52
22	32	52	789	510	209	191	143	113	62	30	130	50
23	32	50	547	372	195	177	146	112	80	29	80	47
24	32	49	408	323	181	169	135	103	104	70	90	47
25	32	46	315	309	170	156	130	95	100	50	150	46
26	32	46	1,020	281	158	149	126	89	119	180	95	44
27	30	54	1,200	302	150	143	122	91	84	110	110	43
28	43	70	778	272	145	138	118	84	86	70	90	45
29	386	65	566	256	——	138	114	82	91	50	200	45
30	137	59	446	240	——	165	110	87	75	70	120	42
31	105	——	401	226	——	163	——	84	——	45	80	——
TOTAL	2,133	2,028	12,023	8,227	4,643	4,282	5,451	5,062	2,890	1,819	4,555	3,419
MEAN	68.8	67.6	388	265	166	138	182	163	96.3	58.7	147	114
MAX	386	120	1,540	707	213	203	382	694	215	180	350	600
MIN	29	46	50	158	135	110	110	82	62	29	35	42
CFSM	.73	.71	4.10	2.80	1.75	1.46	1.92	1.72	1.02	.62	1.55	1.21
IN	.84	.80	4.73	3.24	1.83	1.68	2.14	1.99	1.14	.72	1.79	1.34

CAL YR 1973 TOTAL 86,233 MEAN 236 MAX 2,150 MIN 17 CFSM 2.49 IN 33.91
WTR YR 1974 TOTAL 56,532 MEAN 155 MAX 1,540 MIN 29 CFSM 1.64 IN 22.23

PEAK DISCHARGE (BASE, 1,500 FT³/S)

NOTE.--FRAGMENTARY GAGE-HEIGHT RECORD JUNE 20 TO SEPT. 11.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0900	5.99	2,030	5-12	1700	5.70	1,820
12-26	2000	6.15	2,190				

02029000 JAMES RIVER AT SCOTTSVILLE, VA.

LOCATION.--Lat 37°47'50", long 78°29'30", Albemarle County, on left bank 900 ft (270 m) downstream from bridge on State Highway 20 at Scottsville, 6.8 mi (10.9 km) upstream from Hardware River, and at mile 188.6.

DRAINAGE AREA.--4,584 mi² (11,873 km²).

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 253.18 ft (77.169 m) above mean sea level. Prior to Nov. 28, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--50 years, 5,076 ft³/s or 143.8 m³/s (15.04 in/yr or 382 mm/yr).

EXTREMES.--Current year: Maximum discharge, 78,500 ft³/s (2,220 m³/s) Dec. 28 (gage height, 21.12 ft or 6.437 m); minimum daily, 1,200 ft³/s (34.0 m³/s) Oct. 1.

Period of record: Maximum discharge, 301,000 ft³/s (8,520 m³/s) June 22, 1972 (gage height, 34.02 ft or 10.369 m, from floodmarks), from rating curve extended above 120,000 ft³/s (3,400 m³/s) on basis of slope-conveyance study; minimum daily, 300 ft³/s (8.50 m³/s) Sept. 13, 1966.

Flood in October 1870 reached a stage of 30.7 ft or 9.36 m (discharge, about 215,000 ft³/s or 6,090 m³/s), and flood in November 1877 reached a stage of 27.9 ft or 8.50 m (discharge, about 160,000 ft³/s or 4,530 m³/s), from information by local resident. Flood in March 1913 reached a stage of 25.16 ft (7.669 m), from floodmarks (discharge, 121,000 ft³/s or 3,430 m³/s).

REMARKS.--Records good. Large diurnal fluctuation caused by powerplants above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 727: 1931(m). WSP 972: 1936(M), 1940(M). WRD Va. 1970: Drainage area, 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,200	3,360	6,370	16,000	10,200	5,690	7,530	3,300	3,890	2,860	2,440	1,950
2	3,200	4,350	4,860	17,700	9,060	5,750	7,030	3,280	5,200	2,950	2,270	2,200
3	7,460	4,330	4,060	16,000	8,500	5,230	6,960	3,770	8,340	2,810	2,600	4,540
4	4,090	4,880	3,430	13,600	7,930	5,300	7,910	3,770	19,800	2,410	3,620	5,400
5	4,000	4,080	3,900	12,200	6,650	4,730	17,600	3,510	12,300	1,950	6,530	5,080
6	3,020	3,830	7,030	11,400	6,690	4,860	22,300	3,670	8,420	2,390	5,280	4,610
7	2,420	3,450	7,670	10,700	6,650	4,570	16,500	3,840	6,850	2,590	3,220	22,200
8	2,350	3,260	8,680	9,500	6,410	4,570	13,000	3,430	5,590	2,420	3,050	9,920
9	2,360	3,360	11,400	9,270	6,150	4,940	11,700	3,630	4,780	2,690	3,630	6,240
10	2,330	3,030	11,700	9,990	5,570	4,940	9,960	5,920	4,170	2,430	3,710	4,970
11	2,220	2,780	10,200	11,300	5,380	4,860	9,140	5,480	4,350	2,150	3,340	5,430
12	2,020	2,450	8,650	19,100	5,210	5,650	8,150	6,830	3,640	2,260	2,670	4,420
13	2,350	2,650	7,120	20,700	4,900	6,390	7,570	17,300	3,300	1,840	2,630	3,450
14	1,860	2,310	6,300	15,500	4,860	12,100	6,920	36,500	2,990	1,760	2,520	3,980
15	2,060	2,410	5,770	12,200	4,690	12,200	6,830	19,000	3,010	1,470	2,440	3,240
16	1,720	2,080	5,420	10,300	4,900	10,200	6,630	12,800	3,040	1,610	2,260	3,140
17	1,610	2,450	5,750	9,010	4,690	8,830	6,090	9,670	3,300	1,560	2,020	2,500
18	1,650	1,860	5,320	8,130	4,770	8,130	5,590	8,300	2,930	1,360	1,780	2,600
19	1,540	2,260	5,040	7,320	4,690	7,740	5,380	8,080	3,160	1,450	1,790	2,300
20	1,510	1,690	4,730	6,410	4,840	7,190	5,020	6,650	3,350	1,370	2,080	2,210
21	1,620	1,910	30,700	9,670	4,570	8,130	4,900	5,810	3,100	1,310	1,990	1,900
22	1,500	2,040	41,700	17,400	4,750	11,900	4,530	5,240	2,790	1,390	4,190	1,970
23	1,480	1,880	28,200	15,700	6,260	16,500	4,350	4,770	2,320	1,330	2,750	2,070
24	1,500	1,960	16,900	13,400	7,070	13,700	4,260	4,590	2,690	1,700	2,330	1,920
25	1,460	2,000	13,000	12,200	8,830	10,900	4,410	4,280	2,700	2,740	1,930	1,910
26	1,410	1,780	11,400	14,100	7,960	9,090	3,990	3,860	2,540	1,990	2,080	1,550
27	1,500	2,070	34,300	17,600	6,870	8,180	4,040	3,860	2,550	5,630	3,780	1,760
28	1,350	2,190	73,400	16,800	6,240	7,030	3,700	3,620	2,740	5,510	2,520	1,520
29	3,670	2,640	36,200	15,600	------	6,520	3,550	3,430	2,910	3,030	3,850	1,700
30	4,240	5,020	19,700	13,500	------	6,630	3,650	3,230	2,320	3,070	2,690	1,700
31	2,950	------	15,600	11,600	------	7,620	------	3,630	------	3,400	2,300	------
TOTAL	73,650	84,370	454,500	403,900	175,290	240,070	229,190	215,050	139,050	73,430	90,290	118,380
MEAN	2,376	2,812	14,660	13,030	6,260	7,744	7,640	6,937	4,635	2,369	2,913	3,946
MAX	7,460	5,020	73,400	20,700	10,200	16,500	22,300	36,500	19,800	5,630	6,530	22,200
MIN	1,200	1,690	3,430	6,410	4,570	4,570	3,550	3,230	2,320	1,310	1,780	1,520
CFSM	.52	.61	3.20	2.84	1.37	1.69	1.67	1.51	1.01	.52	.64	.86
IN	.60	.68	3.69	3.28	1.42	1.95	1.86	1.75	1.13	.60	.73	.96

CAL YR 1973 TOTAL 2,909,140 MEAN 7,970 MAX 73,400 MIN 1,170 CFSM 1.74 IN 23.61
WTR YR 1974 TOTAL 2,297,190 MEAN 6,294 MAX 73,400 MIN 1,200 CFSM 1.37 IN 18.64

PEAK DISCHARGE (BASE, 27,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2115	16.12	45,700	5-14	1145	15.19	40,500
12-28	1500	21.12	78,500	9- 7	1315	13.44	32,000

02030000 HARDWARE RIVER BELOW BRIERY RUN, NEAR SCOTTSVILLE, VA.

LOCATION.--Lat 37°48'45", long 78°27'20", Fluvanna County, on left bank 75 ft (23 m) upstream from bridge on State Highway 637, 0.8 mi (1.3 km) downstream from Briery Run, 2.4 mi (3.9 km) northeast of Scottsville, and 10.8 mi (17.4 km) upstream from mouth.

DRAINAGE AREA.--116 mi^2 (300 km^2).

PERIOD OF RECORD.--October 1938 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 294.96 ft (89.904 m) above mean sea level.

AVERAGE DISCHARGE.--36 years, 123 ft^3/s or 3.483 m^3/s (14.40 in/yr or 366 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,800 ft^3/s (79.3 m^3/s) Dec. 21 (gage height, 12.00 ft or 3.658 m); minimum, 36 ft^3/s (1.02 m^3/s) July 23 (gage height, 1.92 ft or 0.585 m).

Period of record: Maximum discharge, 52,000 ft^3/s (1,470 m^3/s) Aug. 20, 1969 (gage height, 31.0 ft or 9.45 m, from floodmarks), from rating curve extended above 18,000 ft^3/s (510 m^3/s) on basis of slope-area measurements at gage heights 23.8 ft (7.25 m) and 31.0 ft (9.45 m); minimum, 0.10 ft^3/s (0.003 m^3/s) Sept. 5-8, 1966; minimum gage height, 0.81 ft (0.247 m) Sept. 8, 1966.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 952: 1949(M). WSP 1002: 1940, 1943. WSP 1032: 1940, 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	141	77	307	161	128	190	97	152	74	44	78
2	585	114	72	235	156	123	158	95	244	69	94	76
3	283	100	71	217	158	123	152	128	177	64	72	245
4	122	92	70	221	156	120	358	105	113	59	152	273
5	89	135	320	201	142	118	498	100	95	58	251	130
6	75	135	345	190	142	118	334	120	87	86	95	276
7	70	106	157	181	177	125	244	103	82	71	76	1,100
8	89	96	122	167	163	118	219	95	86	64	80	336
9	82	98	672	235	152	113	253	142	80	58	112	216
10	72	91	379	226	147	112	204	130	75	57	162	169
11	70	85	207	235	147	110	183	106	68	54	101	627
12	67	84	156	221	144	190	172	260	64	53	78	428
13	63	81	143	183	146	215	167	360	64	49	71	173
14	60	79	165	172	142	165	155	167	69	48	64	133
15	57	78	132	167	135	144	192	130	71	46	58	115
16	56	77	125	161	137	140	158	113	244	44	54	102
17	53	71	132	152	149	135	147	103	139	42	54	95
18	52	70	119	144	144	123	142	98	97	42	50	90
19	53	71	112	142	140	123	137	95	81	41	49	83
20	53	70	212	139	147	137	130	93	108	40	52	79
21	53	70	1,970	544	130	289	127	87	149	38	48	76
22	52	72	827	415	165	271	125	82	179	38	303	72
23	52	68	361	262	172	186	134	86	159	38	147	68
24	52	68	289	224	147	168	123	87	154	50	202	65
25	52	67	244	226	146	149	118	80	112	78	110	65
26	52	67	319	226	132	140	113	74	97	112	174	65
27	51	75	635	244	130	134	112	78	89	102	289	65
28	51	84	334	215	128	127	108	78	90	64	115	72
29	563	122	262	203	------	127	106	75	95	53	159	64
30	239	84	235	186	------	217	100	80	84	68	110	58
31	160	------	226	176	------	283	------	80	------	52	87	------
TOTAL	3,478	2,651	9,490	6,817	4,135	4,768	5,379	3,527	3,404	1,812	3,513	5,494
MEAN	112	88.4	306	220	148	154	179	114	113	58.5	113	183
MAX	585	141	1,970	544	177	289	498	360	244	112	303	1,100
MIN	50	67	70	139	128	110	100	74	64	38	44	58
CFSM	.97	.76	2.64	1.90	1.28	1.33	1.54	.98	.97	.50	.97	1.58
IN	1.12	.85	3.04	2.19	1.33	1.53	1.72	1.13	1.09	.58	1.13	1.76

CAL YR 1973 TOTAL 74,331 MEAN 204 MAX 2,160 MIN 41 CFSM 1.76 IN 23.84
WTR YR 1974 TOTAL 54,468 MEAN 149 MAX 1,970 MIN 38 CFSM 1.28 IN 17.47

PEAK DISCHARGE (BASE, 1,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1830	12.00	2,800	9- 7	0400	9.79	1,570

02030500 SLATE RIVER NEAR ARVONIA, VA.

LOCATION.--Lat 37°42'10", long 78°22'40", Buckingham County, on left bank 100 ft (30 m) upstream from Bumpers Bridge on State Highway 676, 1.8 mi (2.9 km) northwest of Arvonia, 2.9 mi (4.7 km) upstream from Hunts Creek, and 3.8 mi (6.1 km) upstream from mouth.

DRAINAGE AREA.--226 mi² (585 km²).

PERIOD OF RECORD.--April 1926 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 238.78 ft (72.780 m) above mean sea level (levels by Corps of Engineers). Prior to Feb. 15, 1936, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--48 years, 227 ft³/s or 6.429 m³/s (13.64 in/yr or 346 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,590 ft³/s (187 m³/s) Sept. 8 (gage height, 13.89 ft or 4.234 m); minimum, 68 ft³/s (1.93 m³/s) July 22, 23 (gage height, 2.60 ft or 0.792 m).

Period of record: Maximum discharge, 42,200 ft³/s (1,200 m³/s) June 22, 1972 (gage height, 25.10 ft or 7.650 m, from high-water mark in gage house), from rating curve extended above 5,900 ft³/s (167 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.0 ft³/s (0.057 m³/s) Sept. 28 to Oct. 2, 1930; minimum gage height, 1.35 ft (0.411 m) Sept. 12, 1966.

REMARKS.--Records good.

REVISIONS (WATER YEARS).--WSP 972: 1928-29, 1932, 1933-34(M), 1935. WRD Va. 1970: Drainage area. WRD Va. 1972: 1928(M), 1935, 1936(M), 1937, 1940(M), 1944, 1949, 1955(M), 1962(M), 1971(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	170	124	1,100	247	227	365	165	222	133	117	194
2	694	163	118	521	232	233	326	162	352	129	105	557
3	744	136	115	336	229	219	323	318	425	113	115	3,740
4	207	124	115	415	233	212	561	292	258	105	140	3,020
5	146	192	250	348	217	205	1,360	203	201	99	692	727
6	119	249	535	312	209	202	664	254	177	104	266	1,700
7	107	180	243	282	415	215	395	235	157	595	174	6,060
8	159	152	193	255	379	225	342	193	158	229	152	4,290
9	154	153	1,540	429	311	215	441	262	158	143	152	592
10	135	145	924	519	277	233	509	1,250	156	120	175	367
11	122	130	337	362	212	200	356	760	145	109	157	294
12	113	125	239	325	216	191	310	519	137	103	131	251
13	104	125	224	259	302	455	294	1,140	130	96	123	220
14	104	124	500	236	301	344	269	405	142	91	117	200
15	99	123	310	232	269	275	273	286	137	87	160	194
16	95	122	268	224	249	257	249	240	159	82	152	185
17	92	117	275	214	318	249	244	211	152	79	118	179
18	88	112	245	201	400	254	241	197	145	77	109	178
19	90	114	257	195	324	233	233	750	129	76	102	171
20	92	115	375	194	328	245	220	457	125	75	101	163
21	93	113	3,490	519	273	712	206	249	159	71	99	158
22	92	120	2,540	706	316	1,010	203	214	155	69	575	153
23	92	121	575	345	470	409	209	201	135	69	496	149
24	94	117	457	261	307	321	208	205	153	100	553	145
25	94	119	355	415	274	274	194	185	170	424	186	147
26	91	117	434	494	248	245	188	165	139	313	163	150
27	93	121	1,000	733	230	240	185	193	138	670	2,030	146
28	92	131	547	431	225	232	180	222	170	256	407	155
29	253	154	349	355	------	232	177	179	192	159	530	168
30	296	144	305	291	------	455	171	191	158	179	246	151
31	174	------	333	267	------	665	------	195	------	150	193	------
TOTAL	4,676	4,189	17,579	11,874	8,137	9,909	10,321	10,531	5,435	5,116	8,836	24,905
MEAN	151	140	567	383	291	320	344	340	181	165	285	830
MAX	744	249	3,490	1,100	470	1,010	1,360	1,250	425	670	2,030	6,060
MIN	83	112	115	194	209	200	171	162	125	69	99	145
CFSM	.67	.62	2.51	1.69	1.29	1.42	1.52	1.50	.80	.73	1.26	3.67
IN	.77	.69	2.89	1.95	1.34	1.63	1.70	1.73	.89	.84	1.45	4.10

CAL YR 1973 TOTAL 125,551 MEAN 344 MAX 3,490 MIN 63 CFSM 1.52 IN 20.67
WTR YR 1974 TOTAL 121,913 MEAN 334 MAX 6,060 MIN 69 CFSM 1.48 IN 20.05

PEAK DISCHARGE (BASE, 2,100 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12- 9	1730	8.56	2,290	9- 3	0430	11.55	4,340
12-21	1200	11.76	4,510	9- 8	0330	13.89	6,590
8-27	1200	9.81	3,100				

02032680 NORTH FORK RIVANNA RIVER NEAR PROFFIT, VA.

LOCATION.--Lat 38°05'16", long 78°24'44", Albemarle County, on left bank 50 ft (15 m) downstream from bridge on State Highway 649, 1.9 mi (3.1 km) southeast of Proffit, and 2.2 mi (3.5 km) upstream from confluence with South Fork.

DRAINAGE AREA.--176 mi² (456 km²).

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 323.43 ft (98.581 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 4,290 ft³/s (121 m³/s) Dec. 21 (gage height, 15.79 ft or 4.813 m); minimum, 28 ft³/s (0.79 m³/s) July 21-23 (gage height, 2.56 ft or 0.780 m).

Period of record: Maximum discharge, 31,800 ft³/s (901 m³/s) June 21, 1972 (gage height, 30.4 ft or 9.27 m, from floodmarks), from rating curve extended above 5,000 ft³/s (142 m³/s); minimum, 16 ft³/s (0.45 m³/s) Sept. 26, 27, Oct. 4-7, 1970; minimum gage height, 2.47 ft (0.753 m) Sept. 26, 27, Oct. 4-6, 1970.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	336	88	501	241	154	228	109	247	83	43	91
2	430	242	82	366	224	150	295	105	385	73	42	95
3	344	200	81	324	223	146	190	136	357	66	43	560
4	166	168	81	336	219	141	269	118	222	60	64	491
5	113	242	248	300	193	136	453	106	172	56	314	194
6	88	246	487	273	183	134	396	125	144	57	107	184
7	76	186	287	252	191	157	304	112	127	62	71	1,140
8	148	162	221	230	184	142	283	104	123	68	70	468
9	125	166	1,050	271	173	131	384	144	116	56	123	272
10	104	149	701	300	165	126	293	142	102	52	97	210
11	93	133	417	366	165	125	253	118	91	48	74	255
12	85	126	306	372	155	200	235	456	83	43	58	279
13	78	120	258	312	155	198	226	1,020	78	40	55	179
14	75	115	254	284	152	184	218	436	76	39	50	144
15	67	110	210	264	146	171	210	293	77	38	71	126
16	62	108	198	242	144	168	186	226	124	36	57	115
17	55	97	205	223	150	168	173	216	184	36	45	138
18	53	93	184	200	142	152	164	210	105	36	44	102
19	54	95	168	193	142	149	160	178	83	36	43	91
20	56	92	470	184	149	165	152	161	78	33	48	88
21	55	89	3,590	886	131	309	148	139	77	29	44	84
22	53	94	1,530	786	163	330	144	130	82	29	236	82
23	55	88	712	494	196	254	161	125	85	29	190	77
24	55	86	526	396	168	228	144	125	91	34	120	72
25	54	86	408	435	166	198	137	113	82	109	195	72
26	54	85	766	396	152	179	130	102	106	143	287	71
27	53	92	1,740	420	147	170	125	101	174	102	320	70
28	55	98	812	372	147	160	122	99	134	67	128	82
29	1,620	106	558	336	------	155	119	92	127	53	190	86
30	644	92	438	288	------	218	112	106	104	77	159	71
31	399	------	381	262	------	326	------	108	------	61	113	------
TOTAL	5,429	4,102	17,457	10,864	4,766	5,624	6,324	5,755	4,036	1,751	3,494	5,960
MEAN	175	137	563	350	170	181	211	186	135	56.5	113	199
MAX	1,620	336	3,590	886	241	330	453	1,020	385	143	320	1,140
MIN	53	85	81	184	131	125	112	92	76	29	42	70
CFSM	.99	.78	3.20	1.99	.97	1.03	1.20	1.06	.77	.32	.64	1.13
IN	1.15	.87	3.69	2.30	1.01	1.19	1.34	1.22	.85	.37	.74	1.26

CAL YR 1973 TOTAL 112,592 MEAN 308 MAX 3,590 MIN 46 CFSM 1.75 IN 23.80
WTR YR 1974 TOTAL 75,562 MEAN 207 MAX 3,590 MIN 29 CFSM 1.18 IN 15.97

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	1530	13.07	2,920	1-21	1730	10.14	1,930
12- 9	1230	9.03	1,580	5-12	2330	10.18	1,960
12-21	1800	15.79	4,290	9- 7	0730	9.27	1,680
12-27	0300	11.75	2,480				

02034000 RIVANNA RIVER AT PALMYRA, VA.

LOCATION.--Lat 37°51'28", long 78°15'58", Fluvanna County, on left bank 10 ft (3 m) upstream from bridge on U.S. Highway 15 at Palmyra, 0.5 mi (0.8 km) upstream from Cunningham Creek, and 15 mi (24 km) upstream from mouth.

DRAINAGE AREA.--664 mi^2 (1,720 km^2).

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 210.39 ft (64.127 m) above mean sea level. Prior to Oct. 24, 1942, water-stage recorder at site 200 ft (60 m) downstream at same datum. Oct. 24, 1942, to Dec. 18, 1947, nonrecording gage 10 ft (3 m) downstream at same datum.

AVERAGE DISCHARGE.--41 years, 703 ft^3/s or 19.91 m^3/s (14.38 in/yr or 365 mm/yr).

EXTREMES.--Current year: Maximum discharge, 14,900 ft^3/s (422 m^3/s) Dec. 21 (gage height, 20.32 ft or 6.194 m); minimum, 100 ft^3/s (2.83 m^3/s) July 22 (gage height, 2.75 ft or 0.838 m).

Period of record: Maximum discharge, 86,000 ft^3/s (2,440 m^3/s) Aug. 20, 1969 (gage height, 39.85 ft or 12.146 m), from rating curve extended above 76,000 ft^3/s (2,150 m^3/s) on basis of contracted-opening measurement of peak flow and velocity-area study; minimum, 5.2 ft^3/s (0.15 m^3/s) Sept. 9-11, 1966 (gage height, 2.13 ft or 0.649 m).

REMARKS.--Records good. Some diurnal fluctuation at times mostly at low and medium flow by South Fork Rivanna River reservoir. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 802: 1936(M). WSP 852: 1937. WSP 892: 1934-35. WSP 1303: 1945-46(M). WSP 1503: 1956. WRD Va. 1970: Drainage area. WRD Va. 1972: 1969(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	196	1,010	328	1,820	972	537	991	423	912	387	180	311
2	1,310	801	309	1,490	890	534	823	405	1,330	330	205	318
3	1,990	648	300	1,250	855	518	751	491	1,710	293	246	1,210
4	796	548	299	1,270	856	505	1,020	520	1,090	263	259	1,920
5	494	679	789	1,160	770	491	1,860	434	755	245	962	864
6	370	905	1,510	1,030	710	478	1,710	476	600	259	504	650
7	303	659	937	958	765	515	1,280	491	509	356	290	4,710
8	372	555	694	898	746	512	1,130	432	471	299	246	2,050
9	500	547	2,610	1,010	709	473	1,420	539	449	261	395	1,090
10	377	517	2,990	1,140	662	457	1,210	661	414	231	559	773
11	328	453	1,570	1,700	642	450	988	514	376	218	454	1,240
12	301	422	1,120	1,350	622	772	878	872	333	207	300	902
13	282	409	930	1,180	610	975	823	3,470	310	196	248	638
14	263	395	1,010	1,040	584	784	808	1,890	304	190	221	482
15	249	382	809	966	570	692	961	1,260	312	186	204	406
16	233	374	723	898	554	649	781	948	683	189	211	364
17	222	355	784	856	601	669	675	761	650	152	183	335
18	209	330	701	822	579	611	632	852	500	120	170	316
19	207	329	644	804	552	575	602	656	348	117	162	293
20	204	329	766	796	579	706	572	588	307	112	169	272
21	209	318	10,800	2,300	534	1,320	542	514	477	106	173	258
22	207	328	8,700	2,800	605	1,770	529	463	507	102	1,390	245
23	206	325	2,760	2,000	857	1,180	570	446	581	104	938	229
24	208	312	1,990	1,510	697	1,000	578	457	479	132	503	217
25	205	309	1,530	1,520	644	857	521	413	452	182	403	204
26	203	314	1,750	1,480	598	740	495	378	471	328	948	206
27	203	326	5,260	1,540	556	688	478	369	1,310	474	2,030	205
28	201	349	3,090	1,450	534	637	464	371	726	301	595	224
29	3,100	467	2,100	1,310	------	610	452	349	565	210	521	270
30	2,740	362	1,690	1,170	------	914	446	382	476	259	613	228
31	1,340	------	1,480	1,060	------	1,330	------	398	------	244	400	------
TOTAL	18,033	14,057	60,963	40,578	18,853	22,856	24,970	21,228	18,417	7,052	14,696	21,430
MEAN	582	469	1,967	1,309	673	737	832	685	614	227	474	714
MAX	3,100	1,010	10,800	2,800	972	1,770	1,860	3,470	1,710	474	2,030	4,710
MIN	196	309	299	796	534	450	446	349	304	102	162	204
CFSM	.88	.71	2.96	1.97	1.01	1.11	1.25	1.03	.92	.34	.71	1.08
IN	1.01	.79	3.42	2.27	1.06	1.28	1.40	1.19	1.03	.40	.82	1.20

CAL YR 1973 TOTAL 399,546 MEAN 1,095 MAX 11,500 MIN 182 CFSM 1.65 IN 22.38
WTR YR 1974 TOTAL 283,131 MEAN 776 MAX 10,800 MIN 102 CFSM 1.17 IN 15.85

PEAK DISCHARGE (BASE, 6,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-29	2000	12.20	6,490	12-27	1000	11.92	6,290
12-21	1930	20.32	14,900				

02034500 WILLIS RIVER AT FLANAGAN MILLS, VA.

LOCATION.--Lat 37°40'00", long 78°10'00", Cumberland County, on left bank 15 ft (5 m) upstream from bridge on State Highway 690, 0.4 mi (0.6 km) east of Flanagan Mills, 6.9 mi (11.1 km) upstream from mouth, and 7.7 mi (12.4 km) downstream from Reynolds Creek.

DRAINAGE AREA.--262 mi² (679 km²).

PERIOD OF RECORD.--April 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 178.98 ft (54.553 m) above mean sea level (levels by Corps of Engineers). Prior to Jan. 3, 1935, nonrecording gage at site 1,300 ft (396 m) upstream at same datum.

AVERAGE DISCHARGE.--48 years, 247 ft³/s or 6.995 m³/s (12.80 in/yr or 325 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,300 ft³/s (93.5 m³/s) Sept. 8 (gage height, 15.68 ft or 4.779 m, from high-water mark); minimum, 40 ft³/s (1.13 m³/s) July 23, 24 (gage height, 3.45 ft or 1.052 m).
Period of record: Maximum daily discharge, 24,000 ft³/s (680 m³/s) June 22, 1972; maximum gage height, 29.8 ft (9.08 m) June 22, 1972, from floodmarks (backwater from James River); minimum discharge, 1.5 ft³/s (0.042 m³/s) Sept. 13, 14, 1966 (gage height, 2.26 ft or 0.689 m).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Complete regulation of flow from Trice Lake 0.4 mi (0.6 km) upstream (total capacity, about 1,100 acre-ft or 1.36 hm³), tributary to Willis River, slightly affects flow at gage. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 872: 1936-37. WSP 892: 1928-29, 1932-34(M). WSP 972: 1937, 1940. WSP 1203: 1929. WSP 1303: 1928-30(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	181	158	1,080	372	270	558	152	188	214	97	81
2	289	158	131	1,180	320	263	442	147	301	152	78	85
3	466	142	125	1,370	298	256	365	249	442	125	70	244
4	426	125	118	1,060	298	256	418	312	410	106	95	256
5	278	142	152	680	284	242	660	263	291	92	590	207
6	158	200	424	568	270	228	700	256	200	85	940	296
7	125	194	426	460	508	235	660	270	164	90	700	1,560
8	120	164	358	395	604	242	451	228	152	100	263	3,050
9	142	152	819	472	586	242	1,000	316	147	111	175	2,310
10	142	142	920	604	460	235	1,040	746	136	89	142	1,360
11	126	126	880	604	395	221	1,020	800	126	77	125	796
12	116	120	796	550	380	342	670	568	115	67	115	385
13	109	115	384	442	426	478	426	586	105	61	104	235
14	103	110	474	358	460	478	372	532	102	57	91	175
15	99	122	460	320	442	395	342	442	120	53	105	147
16	92	121	426	305	380	335	298	284	147	52	93	142
17	86	126	395	291	442	426	270	228	126	50	78	131
18	80	112	380	277	514	426	249	188	115	48	74	126
19	78	102	358	256	514	350	235	175	105	46	68	122
20	76	99	458	249	478	320	221	307	100	46	64	117
21	78	100	1,540	363	410	588	214	532	122	44	62	112
22	78	102	2,380	604	410	960	207	321	195	42	64	104
23	78	103	2,650	586	514	940	214	214	263	42	131	98
24	77	103	2,070	478	496	885	228	194	200	49	152	92
25	77	104	1,260	460	395	496	214	175	158	96	131	89
26	78	107	820	537	328	365	194	152	147	162	101	90
27	76	102	940	740	291	312	181	158	131	284	92	89
28	75	111	1,020	720	277	291	175	181	306	235	104	92
29	108	169	1,020	660	------	277	169	181	380	164	152	104
30	164	169	550	514	------	395	164	169	335	121	113	102
31	221	------	518	410	------	640	------	164	------	119	93	------
TOTAL	4,294	3,923	23,410	17,593	11,552	12,389	12,377	9,490	5,829	3,079	5,262	12,797
MEAN	139	131	755	568	413	400	413	306	194	99.3	170	427
MAX	466	200	2,650	1,370	604	960	1,040	800	442	284	940	3,050
MIN	73	99	118	249	270	221	164	147	100	42	62	81
CFSM	.53	.50	2.88	2.17	1.58	1.53	1.58	1.17	.74	.38	.65	1.63
IN	.61	.56	3.32	2.50	1.64	1.76	1.76	1.35	.83	.44	.75	1.82

CAL YR 1973 TOTAL 143,932 MEAN 394 MAX 2,720 MIN 58 CFSM 1.50 IN 20.44
WTR YR 1974 TOTAL 121,995 MEAN 334 MAX 3,050 MIN 42 CFSM 1.27 IN 17.32

PEAK DISCHARGE (BASE, 1,700 FT³/S)

NOTE.--NO GAGE-HEIGHT RECORD SEPT. 6-12.

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-23	1400	15.06	2,800	9- 8	UNKNOWN	15.68	3,300

02035000 JAMES RIVER AT CARTERSVILLE, VA.

LOCATION.--Lat 37°40'15", long 78°05'10", Goochland County, on left bank 200 ft (61 m) downstream from bridge on State Highway 45 between Pemberton and Cartersville, 1.8 mi (2.9 km) downstream from Willis River, and at mile 156.4.

DRAINAGE AREA.--6,257 mi² (16,206 km²).

PERIOD OF RECORD.--October 1898 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 163.00 ft (49.957 m) above mean sea level. Prior to June 4, 1927, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--76 years, 7,019 ft³/s or 198.8 m³/s (15.23 in/yr or 387 mm/yr).

EXTREMES.--Current year: Maximum discharge, 75,500 ft³/s (2,140 m³/s) Dec. 29 (gage height, 20.89 ft or 6.367 m); minimum, 1,370 ft³/s (38.8 m³/s) Oct. 1; minimum gage height, 0.93 ft (0.283 [illegible]) July 22.

Period of record: Maximum discharge, 362,000 ft³/s (10,300 m³/s) June 22, [illegible]72 (gage height, 37.87 ft or 11.543 m, from floodmarks), from rating curve extended above 160,000 ft³/s (4,5[illegible]/s) on basis of slope-conveyance study; minimum, 316 ft³/s (8.95 m³/s) Sept. 13, 14, 1966 (gage height, 0.02 ft or 0.006 m); minimum daily, 330 ft³/s (9.35 m³/s) Sept. 14, 1966.

REMARKS.--Records good. Moderate diurnal fluctuation caused by powerplants above station. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 972: 1936(M). WSP 1203: 1901-2(M), 1923-25(M), 1928(M). [illegible] Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,420	4,520	6,800	21,300	12,100	7,300	10,200	4,450	4,640	3,330	3,560	2,830
2	3,560	4,970	5,970	21,700	10,800	6,880	9,480	4,300	6,290	3,600	2,820	2,910
3	13,000	5,420	5,110	21,600	9,900	6,660	8,880	4,840	10,000	3,510	2,930	8,610
4	7,420	5,720	4,450	17,800	9,440	6,380	8,980	5,560	18,400	3,300	3,310	13,200
5	5,320	5,500	4,460	15,700	8,220	6,180	19,000	4,920	17,500	2,790	4,930	9,770
6	4,310	5,670	4,690	14,000	7,880	6,010	26,900	4,920	11,000	2,640	8,350	6,720
7	3,510	4,990	8,890	13,000	8,600	6,000	21,900	5,270	8,540	3,170	5,580	37,500
8	2,840	4,400	10,200	11,700	8,310	5,860	16,700	4,790	6,950	3,390	4,000	28,400
9	3,460	4,380	15,600	11,600	7,940	5,930	17,100	5,050	5,990	3,250	3,810	13,000
10	2,970	4,240	19,900	13,200	7,350	5,980	14,700	7,300	5,390	3,020	4,800	8,840
11	2,850	3,920	13,400	13,200	7,000	6,060	12,500	9,330	4,890	2,810	4,490	7,740
12	2,820	3,610	11,700	18,500	6,650	7,000	11,200	7,740	4,950	2,580	3,920	7,470
13	2,460	3,210	9,530	24,600	6,640	8,500	9,610	17,500	4,120	2,530	2,990	5,500
14	2,770	3,500	8,980	19,400	6,670	11,300	8,700	38,700	3,820	2,100	3,210	4,570
15	2,340	3,070	7,690	14,900	6,270	15,000	9,170	29,500	3,440	1,990	2,850	4,500
16	2,310	3,050	7,090	12,500	6,090	12,500	8,760	15,600	4,240	1,870	2,970	4,090
17	1,970	2,680	7,390	10,900	6,390	11,300	7,720	12,400	4,270	1,980	2,620	3,790
18	1,990	3,220	6,950	9,740	6,800	9,930	7,340	10,200	4,070	1,740	2,380	3,330
19	2,050	2,590	6,570	8,980	6,440	9,280	6,780	9,650	3,810	1,610	1,960	3,290
20	1,740	2,570	7,570	7,720	6,570	9,110	6,570	9,100	3,790	1,730	2,230	2,970
21	1,900	2,480	44,400	8,470	6,500	10,400	6,240	7,790	4,150	1,580	2,400	2,960
22	1,930	2,620	64,500	24,000	6,160	16,600	6,020	5,650	4,000	1,550	3,060	2,400
23	1,850	2,670	43,500	19,800	7,920	18,000	5,790	5,230	4,400	1,620	7,890	2,920
24	1,890	2,560	25,900	17,300	8,480	18,000	5,810	5,720	3,650	1,720	4,350	2,450
25	1,700	2,530	18,000	15,100	10,200	13,800	5,730	5,480	3,600	3,150	3,370	2,700
26	1,830	2,560	15,100	16,100	9,810	11,200	5,370	4,990	3,500	3,070	2,950	2,350
27	1,760	2,520	29,000	21,000	8,880	9,860	5,260	4,780	3,520	5,340	7,430	2,310
28	1,830	2,850	65,500	20,500	7,800	8,750	5,010	4,970	4,570	7,490	5,170	2,310
29	2,710	2,790	59,200	19,100	------	7,920	4,820	4,300	4,230	4,900	4,790	2,370
30	10,700	4,050	26,100	15,400	------	8,340	4,730	4,150	4,030	3,420	4,850	2,430
31	5,950	------	19,700	14,100	------	11,600	------	4,400	------	3,880	3,400	------
TOTAL	105,160	108,860	588,640	492,910	221,810	297,630	296,970	270,680	175,790	90,640	125,370	203,470
MEAN	3,392	3,629	18,990	15,900	7,922	9,601	9,899	8,732	5,859	2,924	4,044	6,782
MAX	13,000	5,720	65,500	24,600	12,100	18,000	26,900	38,700	18,400	7,490	8,350	37,500
MIN	1,420	2,480	4,450	7,720	6,090	5,860	4,730	4,150	3,440	1,550	1,950	2,310
CFSM	.54	.58	3.04	2.54	1.27	1.53	1.58	1.40	.94	.47	.55	1.08
IN	.63	.65	3.50	2.93	1.32	1.77	1.77	1.61	1.05	.54	.75	1.21

CAL YR 1973 TOTAL 3,744,260 MEAN 10,260 MAX 70,600 MIN 1,420 CFSM 1.64 IN 22.26
WTR YR 1974 TOTAL 2,977,920 MEAN 8,159 MAX 65,500 MIN 1,420 CFSM 1.30 IN 17.70

PEAK DISCHARGE (BASE, 40,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0930	19.57	67,800	5-14	1900	14.61	43,400
12-29	0300	20.89	75,500	9- 7	1930	15.94	49,200

02036500 FINE CREEK AT FINE CREEK MILLS, VA.

LOCATION.--Lat 37°35'52", long 77°49'12", Powhatan County, on right bank 75 ft (23 m) downstream from bridge on State Highway 711 at Fine Creek Mills, 0.8 mi (1.3 km) upstream from mouth, and 6.7 mi (10.8 km) northeast of Powhatan.

DRAINAGE AREA.--22.1 mi² (57.2 km²).

PERIOD OF RECORD.--July 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 156.59 ft (47.729 m) above mean sea level. Prior to Oct. 28, 1953, nonrecording gage and crest-stage gage at site 75 ft (23 m) upstream at same datum.

AVERAGE DISCHARGE.--30 years, 19.5 ft³/s or 0.552 m³/s (11.98 in/yr or 304 mm/yr).

EXTREMES.--Current year: Maximum discharge, 905 ft³/s (25.6 m³/s) Dec. 21 (gage height, 4.65 ft or 1.417 m); minimum, 1.6 ft³/s (0.045 m³/s) July 23 (gage height, 1.73 ft or 0.527 m).

Period of record: Maximum discharge, 4,180 ft³/s or 118 m³/s (corrected) Oct. 6, 1972 (gage height, 9.02 ft or 2.749 m); minimum daily, 0.08 ft³/s (0.002 m³/s) Oct. 1, 1968; minimum gage height, 1.53 ft (0.466 m) Sept. 30, Oct. 1, 1970.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1203: 1948. WSP 1303: 1945(M). WSP 1383: 1954. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	12	7.6	188	22	21	30	9.8	35	7.9	3.6	3.3
2	38	8.6	7.1	85	21	19	33	10	49	7.3	3.9	9.8
3	41	6.2	7.6	49	25	21	25	35	42	6.8	6.4	9.8
4	11	6.2	7.6	58	25	18	40	18	19	5.6	7.9	42
5	8.6	16	11	45	21	16	42	14	14	6.0	12	12
6	7.1	15	20	33	22	16	33	28	12	8.6	7.3	37
7	6.7	7.1	10	31	56	19	25	16	11	7.9	14	330
8	10	6.2	10	26	38	18	33	13	12	6.8	8.6	101
9	9.9	8.6	106	50	33	16	201	52	12	6.0	6.8	25
10	8.6	7.1	49	49	30	15	85	56	9.8	4.9	6.0	14
11	8.1	7.1	20	43	30	16	43	25	9.2	4.6	5.6	11
12	8.6	6.7	14	38	31	40	36	23	7.9	4.9	4.9	9.2
13	8.6	6.2	16	28	35	33	45	36	7.3	4.2	4.9	7.9
14	6.7	6.2	42	25	30	22	42	19	7.3	3.6	4.6	6.8
15	5.8	6.7	21	23	25	19	28	14	8.6	3.6	4.2	6.4
16	5.8	6.7	21	23	26	49	23	12	7.3	3.6	4.2	6.4
17	5.8	5.8	27	22	45	81	21	11	7.9	3.3	3.9	6.0
18	6.7	6.2	24	19	31	42	21	10	7.3	2.8	3.9	6.0
19	5.1	6.7	21	19	31	31	19	9.8	6.4	3.3	3.3	5.6
20	5.5	6.7	29	19	31	31	16	10	6.0	2.8	3.3	5.6
21	5.8	6.7	434	36	23	66	16	9.8	6.8	2.5	2.8	5.2
22	5.5	8.6	224	38	38	70	16	9.8	7.3	2.2	3.9	5.2
23	6.2	7.1	81	26	38	38	25	10	22	2.0	6.4	4.9
24	6.2	7.1	59	23	26	33	18	12	23	4.6	6.4	4.9
25	5.8	8.1	47	33	25	28	14	9.8	11	6.0	4.6	4.9
26	5.5	7.6	45	49	22	25	13	9.2	9.2	7.9	4.2	4.9
27	5.5	8.1	45	56	21	25	12	21	9.2	11	9.8	4.9
28	5.5	9.3	33	40	21	23	11	14	14	6.8	4.9	5.2
29	12	8.6	26	40	------	25	11	10	14	4.9	4.2	5.6
30	11	7.6	25	30	------	49	10	14	9.8	4.9	3.6	5.2
31	14	------	43	25	------	45	------	14	------	4.2	3.3	------
TOTAL	295.7	236.8	1,532.9	1,269	822	970	987	555.2	417.3	161.5	173.4	705.7
MEAN	9.54	7.89	49.4	40.9	29.4	31.3	32.9	17.9	13.9	5.21	5.59	23.5
MAX	41	16	434	188	56	81	201	56	49	11	14	330
MIN	5.1	5.8	7.1	19	21	15	10	9.2	6.0	2.0	2.8	3.3
CFSM	.43	.36	2.24	1.85	1.33	1.42	1.49	.81	.63	.24	.25	1.06
IN	.50	.40	2.58	2.14	1.38	1.63	1.66	.93	.70	.27	.29	1.19

CAL YR 1973 TOTAL 9,836.6 MEAN 26.9 MAX 434 MIN 3.7 CFSM 1.22 IN 16.56
WTR YR 1974 TOTAL 8,126.5 MEAN 22.3 MAX 434 MIN 2.0 CFSM 1.01 IN 13.68

PEAK DISCHARGE (BASE, 200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1700	4.65	905	4- 9	1430	3.16	267
1- 1	1500	3.05	236	9- 7	1030	3.89	530

02037000 JAMES RIVER AND KANAWHA CANAL NEAR RICHMOND, VA.

LOCATION.--Lat 37°33'52", long 77°34'28", Henrico County, on left bank 75 ft (23 m) downstream from Canal bridge, 400 ft (122 m) downstream from head gates, 1,200 ft (366 m) north of north end of Bosher Dam on James River, 1.6 mi (2.6 km) upstream from Huguenot Memorial Bridge, and 2.0 mi (3.2 km) west of city limits of Richmond.

PERIOD OF RECORD.--September 1936 to current year.

GAGE.--Water-stage recorder. Datum of gage is 106.07 ft (32.330 m) above mean sea level. Prior to Oct. 1, 1938, at datum 3.06 ft (0.933 m) higher.

AVERAGE DISCHARGE.--38 years, 836 ft³/s (23.68 m³/s).

EXTREMES.--Current year: Maximum discharge, 1,020 ft³/s (28.9 m³/s) Oct. 3 (gage height, 8.30 ft or 2.530 m); minimum, 55 ft³/s (1.56 m³/s) Apr. 13 (gage height, 0.61 ft or 0.186 m).

Period of record: Maximum gage height, 29.1 ft (8.87 m) June 23, 1972, from floodmarks (interchange of flow with James River makes maximum discharge indeterminate); no flow at times when head gates were closed.

REMARKS.--Records good. Canal diverts from James River 1,200 ft (366 m) above Bosher Dam and discharges into river at several points below gaging station near Richmond. Above 2,540 ft³/s or 71.9 m³/s (gage height, 14.5 ft or 4.42 m) there is interchange of flow with James River; discharge above 2,540 ft³/s (71.9 m³/s) included in discharge for James River near Richmond. Figures given show flow in Canal only; for record of flow of James River near Richmond, see sta 02037500. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	784	892	910	928	928	928	928	892	856	856	874	820
2	856	910	928	928	910	928	928	892	892	856	820	820
3	964	910	928	928	910	928	928	892	910	856	820	856
4	910	910	910	928	910	928	946	892	910	856	838	892
5	874	892	910	928	928	928	946	892	910	838	874	856
6	874	910	910	928	928	928	946	892	910	820	892	838
7	874	892	928	928	928	928	946	892	910	820	892	856
8	874	892	928	928	928	928	946	892	892	856	874	874
9	856	892	928	928	928	928	946	892	928	838	856	874
10	874	910	928	928	928	946	964	892	910	838	856	874
11	856	910	928	928	928	946	964	892	892	820	874	856
12	856	892	964	946	928	928	946	892	910	820	856	892
13	856	874	946	946	928	928	383	892	892	802	838	892
14	856	874	946	928	928	928	892	910	892	802	820	874
15	838	874	946	928	928	946	892	910	467	802	820	874
16	838	874	946	946	928	910	892	910	856	820	820	856
17	820	856	946	946	928	928	892	910	874	802	820	856
18	820	856	946	928	928	928	892	892	874	820	802	838
19	820	874	928	928	928	928	892	892	874	802	784	820
20	820	856	946	928	928	928	892	892	874	802	784	820
21	802	838	928	928	928	928	892	892	874	802	784	820
22	820	856	984	964	928	946	892	892	874	784	784	802
23	820	856	984	946	928	928	892	892	892	784	856	784
24	820	856	964	946	928	928	892	892	874	802	874	802
25	820	856	964	928	928	928	892	892	874	802	838	402
26	802	856	984	928	928	928	892	874	874	874	820	802
27	820	856	928	928	928	928	892	874	856	874	820	784
28	820	856	946	928	928	928	892	856	874	928	892	802
29	820	874	946	928	------	928	892	856	892	910	874	784
30	892	892	928	946	------	928	892	856	874	874	892	802
31	892	------	946	928	------	928	------	838	------	856	856	------
TOTAL	26,248	26,346	29,152	28,930	25,930	28,822	26,881	27,526	26,191	25,816	26,104	24,722
MEAN	847	878	940	933	926	930	896	888	873	833	842	824
MAX	964	910	984	964	928	946	964	910	928	928	892	892
MIN	784	838	910	928	910	910	383	838	467	784	784	402

CAL YR 1973 TOTAL 191,501.0 MEAN 525 MAX 984 MIN 8.0
WTR YR 1974 TOTAL 322,668.0 MEAN 884 MAX 984 MIN 383

02037500 JAMES RIVER NEAR RICHMOND, VA.

LOCATION.--Lat 37°33'47", long 77°32'50", Henrico County, on left bank 0.1 mi (0.2 km) upstream from Huguenot Memorial Bridge, 0.5 mi (0.8 km) west of city limits of Richmond, 1.7 mi (2.7 km) downstream from Bosher Dam, 3.3 mi (5.3 km) upstream from Powhite Creek, and at mile 116.60.

DRAINAGE AREA.--6,758 mi² (17,503 km²).

PERIOD OF RECORD.--October 1934 to current year. Gage-height records collected in vicinity of Mayo's Bridge, at mile 109.5, 1876-1956, and at mile 108.7 since 1957, are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Control is Williams Island Dams which divert flow for City of Richmond water supply. Datum of gage is 98.82 ft (30.120 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 7,432 ft³/s or 210.5 m³/s (14.93 in/yr or 379 mm/yr), includes flow in James River and Kanawha Canal.

EXTREMES.--Current year: Maximum discharge, 76,100 ft³/s (2,160 m³/s) Dec. 29 (gage height, 15.94 ft or 4.859 m); minimum, 830 ft³/s (23.5 m³/s) July 23 (gage height, 3.49 ft or 1.064 m).

Period of record: Maximum discharge, 313,000 ft³/s or 8,860 m³/s (includes Canal flow) June 23, 1972 (gage height, 28.62 ft or 8.723 m); minimum daily, about 10 ft³/s (0.28 m³/s) Sept. 8-15, 1966, Sept. 30, Oct. 5, 6, 1968, Oct. 8-10, 1970; minimum daily discharge of James River and James River and Kanawha Canal combined, 370 ft³/s (10.5 m³/s) Sept. 13, 1966.

Probable minimum daily discharge, since 1899, of James River and James River and Kanawha Canal combined, about 350 ft³/s (9.91 m³/s) in October 1930.

REMARKS.--Records good. City of Richmond takes from 40 ft³/s (1.13 m³/s) to 90 ft³/s (2.55 m³/s) for water supply from river below gage except during periods of low flow when supply is obtained from James River and Kanawha Canal. Flow regulated by powerplants above station. Above 18.2 ft (5.55 m) stage there is interchange of flow with James River and Kanawha Canal. Records of daily discharge include diversion by City of Richmond, but do not include flow in James River and Kanawha Canal which diverts around station. For Canal records, see sta 02037000. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 972: 1936(M). WSP 1433: 1951(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	950	4,710	4,030	22,000	13,100	7,660	11,300	4,200	4,080	3,150	3,200	2,650
2	1,260	3,950	5,850	23,100	11,800	7,320	10,100	3,950	5,090	2,780	2,600	2,250
3	9,460	4,450	4,840	21,500	10,500	7,150	9,320	4,080	7,660	2,900	2,230	3,880
4	9,700	4,580	4,320	18,900	10,100	6,810	9,130	4,580	11,800	2,700	2,480	11,800
5	5,260	4,980	3,820	16,900	9,320	6,480	13,000	4,710	20,000	2,500	3,200	10,100
6	4,450	4,980	5,460	14,500	8,200	6,160	24,600	4,450	12,200	2,090	7,920	8,020
7	3,580	4,980	9,220	13,500	8,940	6,000	24,800	4,450	8,570	2,070	6,320	25,700
8	3,080	4,200	8,760	12,200	9,510	6,000	18,400	4,580	7,150	2,700	4,200	41,000
9	2,700	3,820	11,900	11,300	8,940	5,700	19,900	4,200	6,160	2,500	3,320	17,400
10	2,950	3,820	21,500	13,100	8,570	5,700	17,900	5,550	5,260	2,550	3,320	9,840
11	2,600	3,580	15,900	13,100	8,020	5,700	13,500	8,420	4,710	2,330	3,950	6,980
12	2,450	3,320	12,600	14,500	7,840	6,980	11,800	7,320	4,450	2,140	3,580	7,320
13	2,330	3,080	10,100	23,100	7,840	8,200	10,900	11,200	4,200	1,900	3,050	5,550
14	2,190	2,950	8,940	21,500	7,840	8,760	9,320	28,600	3,700	1,860	2,400	4,320
15	2,280	2,980	8,380	16,400	7,660	13,900	8,760	35,800	3,700	1,460	2,520	4,200
16	1,920	2,750	7,320	13,100	7,490	13,500	8,570	19,100	3,120	1,370	2,310	3,700
17	1,860	2,700	6,980	11,300	7,840	12,600	8,200	13,100	3,700	1,230	2,330	3,450
18	1,560	2,310	7,150	9,700	7,840	10,500	7,320	10,100	3,700	1,330	1,990	3,100
19	1,440	2,750	6,480	8,940	7,660	9,510	6,810	9,130	3,320	1,100	1,810	2,800
20	1,510	2,310	6,320	8,200	7,660	8,940	6,320	9,320	3,320	970	1,460	2,680
21	1,280	2,110	24,700	7,840	7,660	9,320	6,000	7,660	3,320	1,010	1,580	2,380
22	1,330	1,990	68,200	16,900	7,550	16,100	5,700	6,810	3,450	930	1,830	2,310
23	1,370	2,110	59,700	21,500	8,020	16,900	5,550	6,000	3,580	890	4,940	1,810
24	1,330	2,210	31,500	17,900	8,570	19,400	5,400	5,550	3,700	970	4,660	2,090
25	1,330	2,110	20,600	15,000	8,760	15,400	5,250	5,120	3,200	1,190	3,450	2,140
26	1,230	2,040	15,900	15,400	9,700	12,200	5,260	4,710	3,050	2,730	2,620	1,950
27	1,260	2,070	19,800	19,200	8,940	10,100	4,840	4,450	2,900	2,950	2,680	1,620
28	1,230	2,110	52,100	21,000	8,200	9,320	4,710	4,450	3,200	5,890	6,990	1,600
29	1,440	2,480	72,300	19,400	------	8,380	4,450	4,450	3,700	5,570	3,580	1,580
30	6,050	2,900	39,900	17,400	------	8,570	4,320	4,080	3,580	3,700	4,200	1,620
31	6,980	------	21,500	15,000	------	10,900	------	3,820	------	2,900	3,700	------
TOTAL	88,360	95,330	596,070	493,380	244,180	300,160	301,440	253,940	159,570	70,360	104,420	195,850
MEAN	2,850	3,178	19,230	15,920	8,721	9,683	10,050	8,192	5,319	2,270	3,368	6,528
MAX	9,700	4,980	72,300	23,100	13,100	19,400	24,800	35,800	20,000	5,890	7,920	41,000
MIN	950	1,990	3,820	7,840	7,490	5,700	4,320	3,820	2,900	890	1,460	1,580
(*)	847	878	940	933	926	930	896	888	873	833	842	824
MEAN‡	3,697	4,056	20,170	16,850	9,647	10,610	10,950	9,080	6,192	3,103	4,210	7,352
CFSM‡	.55	.60	2.98	2.49	1.43	1.57	1.62	1.34	.92	.46	.62	1.09
IN‡	.63	.67	3.44	2.87	1.49	1.81	1.81	1.54	1.03	.53	.72	1.22

CAL YR 1973 TOTAL 3,925,950 MEAN 10,760 MAX 80,500 MIN 950 MEAN‡ 11,280 CFSM‡ 1.67 IN‡ 22.65
WTR YR 1974 TOTAL 2,903,060 MEAN 7,954 MAX 72,300 MIN 890 MEAN‡ 8,838 CFSM‡ 1.31 IN‡ 17.76

PEAK DISCHARGE (BASE, 50,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	2000	15.66	73,900	9- 8	0400	13.31	50,800
12-29	1700	15.94	76,100				

* DIVERSION, IN CUBIC FEET PER SECOND, BY JAMES RIVER AND KANAWHA CANAL.
‡ ADJUSTED FOR DIVERSION.

02038000 FALLING CREEK NEAR CHESTERFIELD, VA.

LOCATION.--Lat 37°26'37", long 77°31'21", Chesterfield County, on left bank at upstream side of bridge on State Highway 651, 0.8 mi (1.3 km) downstream from Licking Creek, 2.8 mi (4.5 km) upstream from Pocoshock Creek, and 4.7 mi (7.6 km) northwest of Chesterfield.

DRAINAGE AREA.--32.8 mi² (85.0 km²).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 126.39 ft (38.524 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 30.9 ft³/s or 0.875 m³/s (12.79 in/yr or 325 mm/yr).

EXTREMES.--Current year: Maximum discharge, 550 ft³/s (15.6 m³/s) Dec. 21 (gage height, 8.63 ft or 2.630 m); minimum, 2.0 ft³/s (0.057 m³/s) Oct. 26; minimum gage height, 2.06 ft (0.628 m) Oct. 18, 19, 21, July 21, 23, 24.

Period of record: Maximum discharge, 2,510 ft³/s (71.1 m³/s) Sept. 12, 1960 (gage height, 12.67 ft or 3.862 m); minimum, 0.01 ft³/s (<0.001 m³/s) Sept. 20, Oct. 3, 1968.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1904: 1957(M), 1958-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	11	5.8	98	43	38	88	15	37	9.9	7.8	6.5
2	9.9	7.9	5.4	69	39	34	60	14	43	8.2	11	5.8
3	24	6.3	5.0	52	45	33	52	44	51	7.4	12	9.6
4	15	5.1	5.0	105	58	30	49	35	31	6.6	9.6	111
5	9.1	13	5.7	80	46	29	66	24	21	5.9	8.9	62
6	6.0	13	7.9	54	41	29	55	41	17	5.8	8.0	95
7	4.7	10	6.7	54	68	28	43	33	14	5.7	26	332
8	5.3	8.0	9.1	48	67	25	39	22	14	5.6	20	175
9	6.0	8.2	109	64	62	25	129	23	13	5.5	12	70
10	5.3	7.4	52	78	55	25	124	33	11	5.2	9.0	54
11	4.7	6.4	27	63	51	24	71	24	9.6	5.0	7.0	37
12	4.4	6.1	18	48	53	53	56	27	8.6	5.2	6.2	27
13	3.9	6.0	18	40	72	53	50	46	8.4	5.7	5.8	20
14	3.7	5.9	35	34	90	42	47	28	7.7	5.6	5.6	15
15	3.4	5.9	26	34	67	34	43	20	7.4	4.9	13	14
16	3.0	6.0	31	31	59	67	36	17	7.1	4.8	14	13
17	2.9	5.2	42	28	99	179	32	14	7.2	4.7	8.4	12
18	2.6	4.9	32	25	71	91	29	13	6.5	4.3	6.2	11
19	2.4	5.1	23	24	59	64	27	22	6.2	4.0	5.2	10
20	2.5	4.8	36	22	59	55	25	47	6.0	3.7	4.4	9.2
21	2.4	5.1	403	50	47	72	23	24	6.6	3.4	4.1	9.6
22	2.2	5.7	348	70	60	95	22	18	18	3.7	4.3	8.0
23	2.3	5.3	103	46	63	61	49	16	21	3.4	7.3	7.7
24	2.3	5.2	63	37	55	52	44	16	27	4.0	5.8	7.1
25	2.3	6.1	51	48	48	45	31	14	21	4.2	6.3	6.8
26	2.2	6.7	47	65	44	41	25	12	19	4.9	6.0	6.7
27	2.4	6.5	45	96	41	45	22	32	18	46	14	11
28	2.3	6.9	38	72	42	47	20	31	19	30	15	7.3
29	8.6	7.7	35	80	------	47	18	19	17	13	9.0	7.0
30	8.8	6.2	35	59	------	114	16	17	13	9.9	7.2	8.1
31	11	------	40	49	------	175	------	18	------	8.1	6.3	------
TOTAL	169.8	207.6	1,707.6	1,723	1,624	1,759	1,393	759	505.3	244.3	285.4	1,168.4
MEAN	5.48	6.92	55.1	55.6	58.0	56.7	46.4	24.5	16.8	7.88	9.21	38.9
MAX	24	13	403	105	99	179	129	47	51	46	26	332
MIN	2.2	4.8	5.0	22	39	24	16	12	6.0	3.4	4.1	5.8
CFSM	.17	.21	1.68	1.70	1.77	1.73	1.41	.75	.51	.24	.28	1.19
IN	.19	.24	1.94	1.95	1.84	1.99	1.58	.86	.57	.28	.32	1.33

CAL YR 1973 TOTAL 12,890.4 MEAN 35.3 MAX 468 MIN 2.2 CFSM 1.08 IN 14.62
WTR YR 1974 TOTAL 11,545.4 MEAN 31.6 MAX 403 MIN 2.2 CFSM .96 IN 13.09

PEAK DISCHARGE (BASE, 220 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2000	8.63	550	9- 7	0530	6.96	361
3-30	2345	5.64	221				

02038850 HOLIDAY CREEK NEAR ANDERSONVILLE, VA.
(Hydrologic bench-mark station)

LOCATION.--Lat 37°24'55", long 78°38'10", Appomattox County, on right bank 350 ft (110 m) downstream from culvert (revised) on State Highway 614, 1.0 mi (1.6 km) upstream from Holiday Lake, and 5.2 mi (8.4 km) southwest of Andersonville.

DRAINAGE AREA.--8.53 mi² (22.09 km²).

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 475 ft or 144.8 m (from topographic map).

AVERAGE DISCHARGE.--8 years, 9.90 ft³/s or 0.280 m³/s (15.76 in/yr or 400 mm/yr).

EXTREMES.--Current year: Maximum discharge, 526 ft³/s (14.9 m³/s) Sept. 6 (gage height, 4.78 ft or 1.457 m); minimum, 1.4 ft³/s (0.040 m³/s) Oct. 17; minimum gage height, 1.07 ft (0.326 m) Oct. 17, July 22.
Period of record: Maximum discharge, 9,640 ft³/s (273 m³/s) June 21, 1972 (gage height, 14.64 ft or 4.462 m, from high-water mark in gage house), from rating curve extended above 4,200 ft³/s (119 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Sept. 11, 12, 1966; minimum gage height, 0.75 ft (0.229 m) July 28, 1966.

REMARKS.--Records good. Recording rain gage located at station. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WRD Va. 1972: 1966-69 (P), 1970(M), 1971(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	4.6	5.2	57	10	11	11	5.5	25	8.1	3.3	4.2
2	72	3.2	4.9	22	10	9.8	12	10	38	7.3	4.6	5.7
3	14	2.8	5.2	17	11	9.3	10	21	20	6.3	4.7	15
4	5.2	2.5	5.5	21	11	9.2	67	6.9	12	5.5	20	12
5	3.4	8.0	32	13	9.2	8.9	40	8.7	9.7	5.6	13	9.9
6	2.6	4.9	19	13	14	8.5	20	12	9.8	6.1	5.8	164
7	2.2	3.9	10	12	26	9.0	14	7.9	8.4	7.3	5.0	104
8	4.5	3.4	13	10	18	8.1	21	7.0	8.9	5.6	5.0	23
9	3.4	3.5	95	22	14	7.5	36	17	7.8	5.0	7.5	14
10	2.5	3.2	27	16	12	7.5	17	18	7.0	4.5	6.9	11
11	2.6	3.2	15	13	12	10	13	11	6.3	4.5	4.7	9.8
12	2.4	3.2	11	12	14	18	11	31	5.9	4.2	4.2	7.7
13	2.1	3.4	19	16	15	16	11	23	5.7	3.9	4.0	7.2
14	2.1	3.4	23	9.9	16	11	10	12	24	3.8	3.7	9.0
15	1.9	3.5	14	9.9	13	9.7	9.8	9.4	9.6	3.5	3.4	10
16	1.8	3.6	14	9.5	14	13	8.7	7.5	8.4	3.4	3.3	9.9
17	1.6	3.4	16	9.0	21	11	8.4	7.0	7.8	3.4	3.3	9.6
18	1.9	3.5	15	8.4	18	8.9	8.3	49	6.3	3.4	3.0	5.8
19	1.8	3.5	12	8.4	17	8.5	8.0	36	5.7	3.3	3.0	7.7
20	1.9	3.9	36	8.1	15	11	7.5	15	23	3.2	3.0	6.7
21	1.9	4.1	152	30	12	44	7.3	11	19	3.1	3.0	6.2
22	1.8	4.6	36	16	25	22	7.4	10	9.8	3.1	23	5.9
23	1.9	4.4	22	13	15	14	8.9	10	13	3.1	5.9	5.6
24	1.8	4.4	19	12	14	12	7.6	9.4	19	6.7	7.5	5.7
25	1.8	4.6	16	20	13	9.5	7.2	8.1	9.3	4.5	4.6	6.1
26	1.8	4.4	26	29	11	9.3	7.1	7.5	9.4	5.1	12	6.4
27	1.9	4.9	45	26	10	8.3	6.7	16	15	10	23	5.5
28	1.9	9.3	21	19	10	8.0	6.5	9.5	26	4.5	7.1	5.5
29	11	8.6	14	16	------	9.4	6.2	8.4	16	4.2	5.2	5.9
30	3.6	5.5	13	13	------	22	5.9	13	10	7.6	4.8	5.6
31	3.2	------	39	12	------	16	------	11	------	3.8	4.7	------
TOTAL	170.9	129.7	794.8	513.2	406.2	380.4	414.5	431.3	394.2	153.8	212.2	505.4
MEAN	5.51	4.32	25.6	16.6	14.5	12.3	13.8	13.9	13.1	4.96	6.85	16.8
MAX	72	9.3	152	57	26	44	67	49	38	10	23	164
MIN	1.6	2.5	4.9	8.1	9.2	7.5	5.9	5.5	5.7	3.1	3.0	4.2
CFSM	.65	.51	3.00	1.94	1.70	1.44	1.62	1.63	1.54	.58	.80	1.98
IN	.74	.57	3.47	2.24	1.77	1.66	1.81	1.88	1.72	.67	.93	2.21

CAL YR 1973 TOTAL 5,778.1 MEAN 15.8 MAX 560 MIN 1.6 CFSM 1.85 IN 25.20
WTR YR 1974 TOTAL 4,508.0 MEAN 12.4 MAX 164 MIN 1.6 CFSM 1.45 IN 19.66

PEAK DISCHARGE (BASE, 150 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10- 2	1200	3.44	275	5-18	1915	4.03	376
12- 9	0315	2.78	167	6-20	1915	2.73	160
12-21	0830	3.49	283	9- 6	2145	4.78	526

02039000 BUFFALO CREEK NEAR HAMPDEN SYDNEY, VA.

LOCATION.--Lat 37°15'25", long 78°29'12", Prince Edward County, on left bank 100 ft (30 m) upstream from bridge on State Highway 658, 0.8 mi (1.3 km) upstream from Locket Creek, 2.0 mi (3.2 km) northwest of Hampden Sydney, and 6.0 mi (9.7 km) southwest of Farmville.

DRAINAGE AREA.--69.7 mi^2 (180.5 km^2).

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 339.19 ft (103.385 m) above mean sea level (levels by Virginia Department of Highways and Transportation). Prior to Aug. 19, 1953, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 64.0 ft^3/s or 1.812 m^3/s (12.47 in/yr or 317 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,220 ft^3/s (120 m^3/s) Sept. 7 (gage height, 9.82 ft or 2.993 m), from rating curve extended as explained below; minimum daily, 28 ft^3/s (0.79 m^3/s) July 21-24.
Period of record: Maximum discharge, 9,160 ft^3/s (259 m^3/s) June 21, 1972 (gage height, 12.38 ft or 3.773 m), from rating curve extended above 1,600 ft^3/s (45.3 m^3/s) on basis of slope-area measurement at gage height 11.96 ft (3.645 m); minimum daily, 2.7 ft^3/s (0.076 m^3/s) Oct. 7, 8, 1970.
Flood in August 1940 reached a stage of about 15 ft (4.6 m), from information by local resident.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1303: 1948-50(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	50	37	380	79	67	131	48	69	45	53	42
2	59	41	37	219	76	65	111	55	123	42	47	42
3	48	38	37	143	77	63	95	84	155	40	48	51
4	39	37	37	183	79	62	123	67	103	38	104	62
5	35	43	62	147	71	59	159	65	78	50	148	47
6	32	41	78	112	73	62	131	107	67	70	91	312
7	32	39	53	101	151	62	103	80	60	85	72	2,040
8	38	38	56	87	127	60	106	68	57	60	60	460
9	37	38	234	126	103	58	385	151	54	50	60	346
10	36	37	115	129	91	56	217	155	51	40	63	261
11	34	37	80	112	84	56	147	107	48	37	52	175
12	34	37	65	94	86	76	111	141	45	34	48	117
13	34	37	72	80	111	95	99	167	43	32	45	87
14	32	37	94	72	123	78	91	111	42	31	41	68
15	32	37	72	70	99	71	81	87	42	30	38	59
16	32	37	76	67	95	88	72	74	42	30	37	54
17	30	36	90	64	131	103	68	65	42	30	37	52
18	31	36	87	61	123	84	75	62	39	30	36	50
19	31	35	76	60	115	76	83	62	38	30	32	47
20	31	35	134	59	115	84	67	56	47	29	32	44
21	31	36	689	101	91	194	60	52	49	28	30	43
22	32	40	426	104	125	259	58	51	47	28	58	42
23	32	38	241	87	123	147	86	54	42	28	43	40
24	32	37	163	78	99	115	70	52	41	28	39	38
25	32	37	126	93	91	91	62	49	39	32	36	38
26	32	37	138	115	77	80	58	46	45	34	33	38
27	31	38	192	143	72	75	56	68	46	154	62	37
28	32	43	126	115	70	71	53	57	110	34	60	38
29	65	41	98	112	------	72	51	53	68	53	50	38
30	52	38	88	98	------	136	50	57	50	107	49	35
31	47	------	138	86	------	208	------	53	------	69	50	------
TOTAL	1,129	1,151	4,017	3,498	2,757	2,873	3,059	2,404	1,782	1,428	1,654	4,803
MEAN	36.4	38.4	130	113	98.5	92.7	102	77.5	59.4	46.1	53.4	160
MAX	65	50	689	380	151	259	385	167	155	154	148	2,040
MIN	30	35	37	59	70	56	50	46	38	28	30	35
CFSM	.52	.55	1.87	1.62	1.41	1.33	1.46	1.11	.85	.66	.77	2.30
IN	.60	.61	2.14	1.87	1.47	1.53	1.63	1.28	.95	.76	.88	2.56

CAL YR 1973 TOTAL 34,859 MEAN 95.5 MAX 1,240 MIN 28 CFSM 1.37 IN 18.60
WTR YR 1974 TOTAL 30,555 MEAN 83.7 MAX 2,040 MIN 28 CFSM 1.20 IN 16.31

PEAK DISCHARGE (BASE, 500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1600	6.86	1,100	9- 7	0300	9.82	4,220

02039500 APPOMATTOX RIVER AT FARMVILLE, VA.

LOCATION.--Lat 37°18'25", long 78°23'20", Cumberland County, on left bank at downstream side of bridge on State Highway 45 at north town limits of Farmville, 1.1 mi (1.8 km) downstream from Buffalo Creek.

DRAINAGE AREA.--303 mi² (785 km²).

PERIOD OF RECORD.--March 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 281.93 ft (85.932 m) above mean sea level. Prior to Nov. 29, 1928, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--48 years, 278 ft³/s or 7.867 m³/s (12.46 in/yr or 316 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,320 ft³/s (236 m³/s) Sept. 7 (gage height, 18.59 ft or 5.666 m); minimum, 92 ft³/s (2.61 m³/s) July 23 (gage height, 3.90 ft or 1.189 m).
Period of record: Maximum discharge, 33,100 ft³/s (937 m³/s) June 22, 1972 (gage height, 29.70 ft or 9.053 m, from floodmarks), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 3.8 ft³/s (0.11 m³/s) Sept. 25, 1941.

REMARKS.--Records good. Diurnal fluctuation at low flow caused by Prince Edward Mill 0.2 mi (0.3 km) upstream. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1927-37, 1938(M). WSP 1303: 1927(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	174	132	2,530	403	281	485	181	378	227	159	189
2	233	170	124	1,790	372	271	381	186	633	197	135	179
3	831	200	123	654	371	263	354	355	1,010	179	147	206
4	275	205	122	606	385	258	467	319	480	165	216	326
5	192	221	172	634	298	260	1,370	239	323	159	511	248
6	162	255	515	470	279	260	811	335	265	201	352	660
7	144	221	273	406	657	265	493	305	234	252	228	6,890
8	149	188	216	357	602	263	448	244	222	212	194	5,410
9	186	179	977	454	477	251	1,510	455	216	179	182	1,180
10	163	172	1,230	644	393	244	1,170	672	198	159	215	707
11	151	165	411	483	367	241	610	431	186	145	186	552
12	141	165	288	426	390	323	453	393	168	138	159	426
13	133	165	266	345	488	452	398	752	160	132	148	327
14	128	165	448	310	533	376	378	456	160	125	138	260
15	122	164	344	295	443	310	343	321	213	121	127	228
16	116	168	290	288	384	326	306	271	173	114	119	207
17	113	155	325	276	527	448	284	239	173	108	114	190
18	109	133	301	262	575	357	274	258	157	105	113	182
19	110	133	307	251	476	309	282	1,380	135	105	109	177
20	112	133	409	248	502	315	265	434	200	104	109	164
21	113	133	2,790	368	397	705	247	282	436	98	109	155
22	111	145	4,610	712	461	1,610	239	243	252	95	305	150
23	114	148	1,350	423	681	719	286	229	228	94	395	144
24	113	142	668	347	440	480	283	233	243	104	190	136
25	111	139	502	389	375	387	243	208	197	127	164	135
26	112	138	488	596	328	335	229	188	204	127	144	146
27	111	133	865	924	300	315	221	241	273	363	260	152
28	110	136	681	668	289	300	213	265	828	291	257	149
29	205	181	436	612	------	297	206	210	482	177	176	155
30	269	157	367	514	------	428	190	229	287	233	171	178
31	179	------	583	444	------	656	------	246	------	242	224	------
TOTAL	5,231	4,983	20,613	17,726	12,193	12,305	13,439	10,800	9,114	5,078	6,056	20,213
MEAN	169	166	665	572	435	397	448	348	304	164	195	674
MAX	831	255	4,610	2,530	681	1,610	1,510	1,380	1,010	363	511	6,890
MIN	109	133	122	248	279	241	190	181	135	94	109	135
CFSM	.56	.55	2.19	1.89	1.44	1.31	1.48	1.15	1.00	.54	.64	2.22
IN	.64	.61	2.53	2.18	1.50	1.51	1.65	1.33	1.12	.62	.74	2.48

CAL YR 1973 TOTAL 159,811 MEAN 438 MAX 5,710 MIN 99 CFSM 1.45 IN 19.62
WTR YR 1974 TOTAL 137,751 MEAN 377 MAX 6,890 MIN 94 CFSM 1.24 IN 16.91

PEAK DISCHARGE (BASE, 1,900 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0830	16.51	5,270	3-22	1200	11.91	1,930
1- 1	2130	14.25	3,060	9- 7	2130	18.59	8,320

02040000 APPOMATTOX RIVER AT MATTOAX, VA.

LOCATION.--Lat 37°25'17", long 77°51'33", Amelia County, on right bank 75 ft (23 m) upstream from Southern Railway bridge at Mattoax, 0.3 mi (0.5 km) upstream from Skinquarter Creek, and 3.7 mi (6.0 km) upstream from Flat Creek.

DRAINAGE AREA.--726 mi² (1,880 km²).

PERIOD OF RECORD.--August 1900 to December 1905, March 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 174.51 ft (53.191 m) above mean sea level. August 1900 to December 1905, nonrecording gage at same site, different datum. March 1926 to October 1936, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--53 years, 707 ft³/s or 20.02 m³/s (13.22 in/yr or 336 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,330 ft³/s (236 m³/s) Sept. 10 (gage height, 23.81 ft or 7.257 m); minimum, 151 ft³/s (4.28 m³/s) July 23, 24 (gage height, 6.43 ft or 1.960 m).

Period of record: Maximum discharge, 35,000 ft³/s (991 m³/s) Aug. 18, 1940 (gage height, 35.3 ft or 10.76 m from floodmark in gage house), from rating curve extended above 20,000 ft³/s (566 m³/s) on basis of records for stations at Farmville and near Petersburg; minimum, 11 ft³/s (0.31 m³/s) Oct. 2, 1930 (gage height, 3.52 ft or 1.073 m).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 892: 1938. WSP 972: 1928, 1932, 1934-38. WSP 1303: 1901(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	219	410	320	2,500	988	689	1,850	445	566	555	414	300
2	318	365	280	4,000	877	659	1,310	427	809	423	290	310
3	571	368	261	2,500	817	633	973	566	1,550	360	243	326
4	1,090	334	252	1,700	835	612	928	809	1,740	316	376	492
5	576	380	259	1,600	862	597	1,270	702	1,030	295	553	507
6	355	423	343	1,400	744	579	2,070	638	670	270	806	688
7	278	440	751	1,200	1,020	579	1,780	850	550	302	675	3,500
8	246	410	605	1,080	1,760	597	1,120	747	500	397	434	3,950
9	252	358	1,080	1,070	1,590	599	2,850	809	478	366	358	4,370
10	276	324	1,880	1,410	1,220	553	3,230	1,900	445	304	324	7,360
11	288	314	2,030	1,610	1,020	529	3,310	1,890	405	263	318	7,340
12	257	304	995	1,270	946	638	3,050	1,100	370	238	322	3,240
13	240	298	720	1,040	1,130	874	1,270	1,050	346	234	277	940
14	227	298	841	859	1,420	1,090	1,080	1,350	326	212	252	709
15	214	300	998	770	1,440	892	994	970	320	200	236	574
16	205	302	897	733	1,150	841	877	705	348	197	220	496
17	193	298	839	694	1,200	1,340	778	594	344	184	206	446
18	185	298	863	651	1,510	1,440	716	521	320	176	196	409
19	180	272	821	615	1,470	1,020	680	694	306	170	190	388
20	178	263	832	586	1,270	826	657	2,130	279	167	184	369
21	185	261	3,580	654	1,240	1,010	628	1,560	348	164	179	342
22	186	265	4,490	1,170	1,110	2,190	592	705	781	157	196	326
23	190	276	4,330	1,570	1,570	2,560	657	594	540	152	247	303
24	191	288	4,620	1,030	1,770	2,260	739	576	443	163	533	283
25	200	290	5,570	928	1,170	1,140	722	538	507	182	344	269
26	197	278	3,950	1,160	934	913	597	467	380	241	265	257
27	195	272	1,700	1,830	800	795	545	469	346	306	318	251
28	198	280	1,000	2,100	730	739	516	568	465	1,150	254	249
29	238	288	900	1,680	------	708	495	597	1,390	599	370	247
30	322	300	800	1,430	------	929	474	492	937	352	270	242
31	505	------	1,500	1,180	------	1,510	------	488	------	322	227	------
TOTAL	8,955	9,557	48,306	42,020	32,593	30,338	36,758	25,951	17,889	9,417	10,077	39,482
MEAN	289	319	1,558	1,355	1,164	979	1,225	837	596	304	325	1,316
MAX	1,090	440	5,570	4,000	1,770	2,560	3,310	2,130	1,740	1,160	806	7,360
MIN	178	261	252	586	730	528	474	427	279	152	179	242
CFSM	.40	.44	2.15	1.87	1.60	1.35	1.69	1.15	.82	.42	.45	1.81
IN	.46	.49	2.48	2.15	1.67	1.55	1.88	1.33	.92	.48	.52	2.02

CAL YR 1973 TOTAL 367,131 MEAN 1,006 MAX 7,420 MIN 178 CFSM 1.39 IN 18.81
WTR YR 1974 TOTAL 311,343 MEAN 853 MAX 7,360 MIN 152 CFSM 1.17 IN 15.95

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0100	19.91	4,600	1- 2	UNKNOWN	-	UNKNOWN
12-25	1300	21.67	5,770	9-10	2100	23.81	8,330

NOTE.--NO GAGE-HEIGHT RECORD DEC. 27 TO JAN. 7.

02041000 DEEP CREEK NEAR MANNBORO, VA.

LOCATION.--Lat 37°16'59", long 77°52'22", Amelia County, on left bank 300 ft (91 m) upstream from bridge on State Highway 153, 0.9 mi (1.4 km) upstream from Sweathouse Creek, 3.4 mi (5.5 km) northwest of Mannboro, and 7.5 mi (12.1 km) southeast of Amelia.

DRAINAGE AREA.--158 mi² (409 km²).

PERIOD OF RECORD.--September 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 177.20 ft (54.011 m) above mean sea level. Prior to Sept. 2, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 137 ft³/s or 3.880 m³/s (11.78 in/yr or 299 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,070 ft³/s (86.9 m³/s) Dec. 22 (gage height, 10.40 ft or 3.170 m); minimum, 9.1 ft³/s (0.25 m³/s) July 24 (gage height, 1.66 ft or 0.506 m).

Period of record: Maximum discharge, 15,000 ft³/s (425 m³/s) Oct. 6, 1972 (gage height, 24.04 ft or 7.327 m, from high-water mark), from rating curve extended above 3,900 ft³/s (110 m³/s); minimum, 0.03 ft³/s (<0.001 m³/s) Oct. 4, 5, 1968; minimum gage height, 0.29 ft (0.884 m) Aug. 9-12, 1957.

Flood in August 1940 reached a stage of 14.8 ft (4.51 m), from information by local resident.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1203: 1948 (calendar year figures only). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	69	48	212	187	152	856	85	108	67	36	43
2	32	62	46	319	162	142	324	80	152	52	69	44
3	42	53	45	253	162	137	222	127	157	45	168	47
4	48	48	45	289	192	137	202	167	122	38	124	148
5	44	48	46	548	192	132	217	122	98	34	108	362
6	37	77	56	456	162	132	217	167	81	32	78	366
7	33	81	60	251	202	137	182	202	72	33	116	1,010
8	31	66	60	233	264	142	162	147	70	60	152	2,200
9	33	55	209	222	278	142	382	122	70	43	100	1,010
10	36	49	421	314	228	137	956	180	70	36	74	254
11	36	45	286	312	207	132	485	192	65	30	57	116
12	36	43	119	228	207	162	233	147	58	26	47	85
13	34	44	89	187	245	233	202	208	55	22	43	67
14	32	42	112	157	329	245	197	222	51	19	40	56
15	32	44	126	147	329	187	187	147	49	18	39	49
16	30	46	121	147	238	198	162	115	48	16	38	44
17	29	45	152	142	305	492	142	99	48	16	34	41
18	28	44	165	132	426	726	132	86	47	14	32	40
19	27	44	172	127	282	278	127	118	46	13	30	40
20	26	44	136	122	257	212	120	137	44	12	28	39
21	27	44	796	157	236	241	113	122	46	12	28	37
22	30	48	2,620	332	218	504	110	97	51	10	27	34
23	27	52	1,270	337	305	514	134	84	46	9.7	35	33
24	28	54	468	202	320	238	177	83	55	10	36	30
25	28	54	245	177	212	202	147	81	73	15	35	29
26	30	59	212	207	187	172	117	73	63	18	35	29
27	30	50	207	316	167	162	109	94	79	81	46	28
28	30	50	197	404	157	157	100	132	85	186	137	28
29	34	52	172	319	------	152	95	120	106	110	63	30
30	53	50	152	293	------	274	90	91	93	56	43	32
31	65	------	152	217	------	728	------	81	------	42	46	------
TOTAL	1,058	1,562	9,005	7,759	6,658	7,599	6,899	3,928	2,208	1,175.7	1,944	6,371
MEAN	34.1	52.1	290	250	238	245	230	127	73.6	37.9	62.7	212
MAX	65	81	2,620	548	426	728	956	222	157	186	168	2,200
MIN	26	42	45	122	157	132	90	73	44	9.7	27	28
CFSM	.22	.33	1.84	1.58	1.51	1.55	1.46	.80	.47	.24	.40	1.34
IN	.25	.37	2.12	1.83	1.57	1.79	1.62	.92	.52	.28	.46	1.50

CAL YR 1973 TOTAL 68,329.0 MEAN 187 MAX 3,370 MIN 26 CFSM 1.18 IN 16.09
WTR YR 1974 TOTAL 56,166.7 MEAN 154 MAX 2,620 MIN 9.7 CFSM .97 IN 13.22

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0900	10.40	3,070	9- 8	0400	9.73	2,650

02041650 APPOMATTOX RIVER AT MATOACA, VA.

LOCATION.--Lat 37°13'28", long 77°28'32", Chesterfield County, on left bank at upstream side of bridge on State Highway 600, 0.2 mi (0.3 km) south of Matoaca, 2.0 mi (3.2 km) upstream from Rohoic Creek, 2.8 mi (4.5 km) downstream from Lake Chesdin, 3.5 mi (5.6 km) west of Petersburg, and at mile 15.9.

DRAINAGE AREA.--1,344 mi^2 (3,481 km^2).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 68.30 ft (20.818 m) above mean sea level.

AVERAGE DISCHARGE.--5 years, 1,590 ft^3/s or 45.0 m^3/s (16.07 in/yr or 408 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,500 ft^3/s (240 m^3/s) Dec. 23 (gage height, 9.19 ft or 2.801 m); minimum, 184 ft^3/s (5.21 m^3/s) July 21, 22 (gage height, 2.00 ft or 0.610 m).

Period of record: Maximum discharge, 40,800 ft^3/s (1,160 m^3/s) Oct. 7, 1972 (gage height, 18.39 ft or 5.605 m); minimum, 106 ft^3/s (3.00 m^3/s) June 15, 16, 1970 (gage height, 1.69 ft or 0.515 m).

REMARKS.--Records good. Flow regulated by Appomattox River Water Authority at Lake Chesdin (capacity, 36,500 acre-ft or 45.0 hm^3), 2.8 mi (4.5 km) upstream, from which an average of 12.4 ft^3/s (0.35 m^3/s) is diverted for industrial and municipal use. Records do not include flow of Upper Appomattox Canal of Virginia Electric and Power Co. which diverts around station.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	252	515	354	2,340	1,780	1,150	3,760	665	832	1,050	468	370
2	289	433	361	4,030	1,500	1,070	3,430	599	944	754	518	390
3	365	415	351	4,470	1,400	1,010	2,200	925	1,380	595	589	452
4	550	399	337	4,980	1,410	979	1,760	1,010	2,000	496	551	820
5	797	456	337	4,890	1,410	951	1,870	1,150	1,860	425	633	1,090
6	555	478	379	3,630	1,320	916	2,440	1,210	1,190	395	749	1,360
7	411	483	411	2,480	1,410	937	2,770	1,250	881	390	1,190	4,050
8	351	496	713	2,080	2,220	895	2,230	1,230	724	395	983	6,340
9	322	525	1,190	1,920	2,830	916	2,780	1,100	637	468	842	7,110
10	310	411	1,770	2,220	2,440	930	4,870	1,520	604	453	650	6,970
11	310	368	2,510	2,600	1,990	867	5,420	2,490	572	395	529	6,520
12	316	354	1,990	2,440	1,680	1,060	5,080	2,480	507	330	479	6,920
13	304	351	1,160	1,820	1,850	1,470	3,830	1,910	465	279	452	5,020
14	304	354	997	1,470	2,420	1,680	2,100	1,760	438	259	400	1,980
15	283	351	1,020	1,250	2,680	1,650	1,720	1,810	408	241	335	929
16	272	395	1,240	1,140	2,480	1,570	1,400	1,290	408	234	306	710
17	262	331	1,310	1,040	2,470	2,850	1,210	972	421	215	287	606
18	242	331	1,120	1,010	2,600	3,090	1,100	793	413	203	267	551
19	235	344	1,040	958	2,680	2,680	1,010	754	384	209	244	507
20	232	325	1,100	895	2,530	1,860	916	1,300	380	203	228	490
21	232	325	3,300	993	2,110	1,700	895	2,520	348	190	221	463
22	230	340	6,710	1,540	2,080	2,540	853	1,780	460	187	231	425
23	235	334	8,140	2,190	2,370	3,590	993	1,040	742	187	287	400
24	240	337	8,140	2,150	2,730	3,770	1,100	825	665	190	345	340
25	244	372	7,160	1,620	2,670	2,710	1,110	760	583	187	507	335
26	242	347	6,520	1,670	1,810	1,730	986	671	572	203	479	325
27	240	354	5,850	2,590	1,410	1,350	839	748	517	507	490	316
28	232	372	3,250	3,270	1,230	1,200	780	786	531	760	501	325
29	280	411	2,600	3,500	------	1,200	730	832	683	1,240	490	350
30	304	344	1,950	2,880	------	1,840	694	806	1,300	929	490	330
31	372	------	1,510	2,310	------	3,660	------	683	------	595	420	------
TOTAL	9,813	11,651	74,820	72,376	57,510	53,821	60,876	37,569	21,849	13,174	15,151	57,594
MEAN	317	388	2,414	2,335	2,054	1,736	2,029	1,212	728	425	489	1,920
MAX	797	525	8,140	4,980	2,830	3,770	5,420	2,520	2,000	1,240	1,190	7,110
MIN	230	325	337	895	1,230	867	694	599	348	187	221	316

CAL YR 1973 TOTAL 602,519 MEAN 1,651 MAX 11,000 MIN 230
WTR YR 1974 TOTAL 486,214 MEAN 1,332 MAX 8,140 MIN 187

02042500 CHICKAHOMINY RIVER NEAR PROVIDENCE FORGE, VA.

LOCATION.--Lat 37°26'10", long 77°03'40", New Kent County, on left bank 100 ft (30 m) downstream from bridge on State Highway 618, 1.1 mi (1.8 km) southwest of Providence Forge, and 1.7 mi (2.7 km) downstream from Schiminoe Creek.

DRAINAGE AREA.--248 mi² (642 km²).

PERIOD OF RECORD.--January 1942 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6.07 ft (1.850 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 256 ft³/s or 7.250 m³/s (14.02 in/yr or 356 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,540 ft³/s (43.6 m³/s) Sept. 11 (gage height, 8.86 ft or 2.701 m); minimum, 3.0 ft³/s (0.085 m³/s) July 23, 24 (gage height, 1.79 ft or 0.546 m).

Period of record: Maximum discharge, 7,710 ft³/s (218 m³/s) Aug. 15, 1955 (gage height, 11.67 ft or 3.557 m); minimum, 1.1 ft³/s (0.031 m³/s) Oct. 15, 1970; minimum gage height, 1.53 ft (0.466 m) Sept. 13, 1965.

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 1553: 1956. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	74	61	365	531	311	442	145	116	39	82	187
2	70	83	57	378	491	274	496	122	123	34	96	116
3	150	89	57	404	450	246	530	144	136	29	96	81
4	280	90	51	463	406	225	609	150	126	23	99	180
5	300	97	48	559	365	209	634	148	121	18	105	236
6	280	119	47	702	341	193	598	177	118	16	90	296
7	250	110	49	729	335	185	500	189	131	16	193	768
8	220	112	53	628	340	180	415	208	166	14	358	1.170
9	190	103	148	559	367	173	405	208	188	13	502	1.140
10	150	98	211	525	372	168	417	207	172	11	482	1.140
11	120	96	291	495	391	164	405	203	132	8.9	394	1.500
12	90	90	340	476	435	215	384	196	91	10	345	1.390
13	70	80	328	447	456	250	494	196	56	11	311	1.090
14	52	74	401	438	457	272	759	176	54	8.1	268	803
15	44	67	427	431	438	273	741	166	47	6.8	303	599
16	36	62	407	405	415	291	568	172	43	6.3	327	433
17	31	59	398	363	436	422	419	168	47	5.7	195	293
18	28	57	368	314	444	478	324	158	37	5.2	205	184
19	26	53	352	271	450	507	268	153	29	4.8	152	120
20	25	52	335	246	437	512	238	144	24	4.5	100	90
21	24	50	416	255	412	604	215	121	20	4.1	72	76
22	24	48	552	323	403	621	195	97	19	3.8	61	65
23	23	47	626	304	405	550	203	79	34	3.2	65	58
24	23	51	680	312	417	477	211	72	60	3.2	101	50
25	24	48	1.010	321	407	423	206	65	43	3.8	159	46
26	24	44	1.100	372	365	432	197	60	39	10	147	44
27	24	44	909	448	349	431	181	81	42	84	180	40
28	23	46	685	449	342	389	172	103	46	109	180	43
29	25	57	511	454	------	325	171	103	49	92	198	46
30	36	61	399	463	------	338	164	98	46	68	187	42
31	61	------	334	515	------	399	------	90	------	66	198	------
TOTAL	2.760	2.161	11.651	13.414	11.457	10.537	11.562	4.399	2.355	731.4	6.251	12.326
MEAN	89.0	72.0	376	433	409	340	385	142	78.8	23.6	202	411
MAX	300	119	1.100	729	531	621	759	208	188	109	502	1.500
MIN	23	44	47	246	335	164	164	60	19	3.2	61	40
CFSM	.36	.29	1.52	1.75	1.65	1.37	1.55	.57	.32	.10	.81	1.66
IN	.41	.32	1.75	2.01	1.72	1.58	1.73	.66	.35	.11	.94	1.85

CAL YR 1973 TOTAL 101.001.0 MEAN 277 MAX 1.740 MIN 23 CFSM 1.12 IN 15.15
WTR YR 1974 TOTAL 89.614.4 MEAN 246 MAX 1.500 MIN 3.2 CFSM .99 IN 13.44

02043000 LAKE DRUMMOND IN GREAT DISMAL SWAMP, VA.
(Formerly published as Lake Drummond in Dismal Swamp)

LOCATION.--Lat 36°35'42", long 76°26'23", Chesapeake City, on right bank in outlet canal, 200 ft (61 m) upstream from dam and gates, 0.5 mi (0.8 km) downstream from Lake Drummond, 3.1 mi (5.0 km) north of North Carolina State line, and 20 mi (32 km) southwest of Norfolk.

PERIOD OF RECORD.--May 1926 to current year.

GAGE.--Nonrecording gage. Datum of gage is 12.16 ft (3.706 m) above mean sea level.

EXTREMES.--Current year: Maximum gage height, 5.28 ft (1.609 m) May 12; minimum, 2.89 ft (0.881 m) Dec. 8.
Period of record: Maximum gage height, 6.68 ft (2.036 m) Sept. 17, 1960; minimum, -0.67 ft (-0.204 m) Nov. 3, 1952.

REMARKS.--Mean daily gage heights are shown in table below.

REVISIONS (WATER YEARS).--WSP 1032: 1934-43.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.29	3.65	2.96	5.11	4.89	5.10	5.03	5.18	5.06	5.11	4.79	5.01
2	4.27	3.57	2.94	5.09	4.92	5.10	4.92	5.11	5.07	5.14	4.76	5.01
3	4.51	3.54	2.91	5.10	4.98	5.11	4.96	5.14	5.17	5.18	4.81	4.98
4	4.49	3.53	2.92	5.14	4.96	5.11	5.04	5.14	5.17	5.17	4.85	4.98
5	4.46	3.51	2.90	5.00	4.93	5.09	5.07	5.14	5.19	5.16	5.02	4.94
6	4.42	3.57	2.91	4.98	4.97	5.11	4.89	5.12	5.20	5.18	5.09	4.93
7	4.40	3.50	2.90	4.91	5.00	5.10	4.97	5.09	5.20	5.20	5.05	5.14
8	4.32	3.44	2.89	4.92	5.00	5.09	5.04	5.07	5.24	5.17	5.04	5.20
9	4.27	3.53	3.05	4.92	5.00	5.07	5.12	5.18	5.16	5.18	5.09	5.20
10	4.25	3.55	3.05	4.90	5.04	5.04	5.14	5.19	5.09	5.15	5.12	5.20
11	4.23	3.41	3.12	4.88	5.05	4.90	5.13	5.20	5.03	5.10	5.07	5.20
12	4.21	3.36	3.17	4.88	5.10	5.10	4.97	5.28	5.05	5.08	5.03	5.19
13	4.20	3.35	3.22	4.80	5.09	5.16	5.04	5.15	5.05	5.01	5.00	5.17
14	4.17	3.34	3.27	4.89	5.08	5.07	5.03	5.11	4.98	4.99	5.02	5.16
15	4.09	3.31	3.32	4.98	5.10	5.04	5.03	5.11	4.95	4.92	5.08	5.11
16	4.02	3.27	3.38	5.01	5.07	4.99	5.09	5.12	4.90	4.90	5.08	5.10
17	4.02	3.23	3.64	5.04	5.11	5.19	5.13	5.04	4.97	4.86	5.09	5.13
18	3.99	3.22	3.71	5.05	5.10	5.02	5.11	5.09	4.89	4.81	5.10	5.11
19	3.93	3.20	3.82	5.10	5.11	4.98	5.10	5.02	4.86	4.76	5.11	5.09
20	3.93	3.19	3.92	5.07	5.11	5.09	5.10	4.97	4.81	4.72	5.09	5.06
21	3.87	3.16	4.10	5.07	5.09	5.18	5.14	5.03	5.01	4.69	5.09	5.10
22	3.82	3.16	4.30	5.07	5.05	5.18	5.17	4.98	5.00	4.66	5.13	5.18
23	3.77	3.16	4.54	5.10	4.95	5.04	5.25	4.98	5.07	4.59	5.14	5.14
24	3.72	3.12	4.65	5.09	4.90	5.16	5.21	4.96	5.02	4.54	5.18	5.08
25	3.71	3.11	4.94	5.12	4.90	5.06	5.19	4.91	5.11	4.58	5.20	5.10
26	3.75	3.08	5.12	5.13	5.03	5.06	5.11	4.87	5.16	4.64	5.14	5.15
27	3.73	3.01	5.16	5.11	5.04	5.03	5.11	4.94	5.19	4.78	5.13	5.14
28	3.67	3.00	5.16	5.13	5.04	5.05	5.11	5.02	5.06	4.81	5.12	5.15
29	3.69	3.05	5.20	5.04	------	5.07	5.14	5.01	5.07	4.84	5.13	5.13
30	3.64	3.05	5.13	5.02	------	5.17	5.18	5.03	5.10	4.79	5.08	5.11
31	3.62	------	5.16	4.94	------	5.06	------	5.04	------	4.78	5.03	------
MEAN	4.05	3.31	3.79	5.02	5.02	5.08	5.08	5.07	5.06	4.92	5.05	5.11
MAX	4.51	3.65	5.20	5.14	5.11	5.19	5.25	5.28	5.24	5.20	5.20	5.20
MIN	3.62	3.00	2.89	4.80	4.89	4.90	4.89	4.87	4.81	4.54	4.76	4.93

CAL YR 1973 MEAN 4.72 MAX 5.25 MIN 2.89
WTR YR 1974 MEAN 4.71 MAX 5.28 MIN 2.89

02044000 NOTTOWAY RIVER NEAR BURKEVILLE, VA.

LOCATION.--Lat 37°04'40", long 78°11'50", Nottoway County, on left bank at downstream side of bridge on State Highway 723, 4.0 mi (6.4 km) upstream from Modest Creek, 5.6 mi (9.0 km) north of Victoria, and 7.5 mi (12.1 km) south of Burkeville.

DRAINAGE AREA.--38.7 mi² (100.2 km²).

PERIOD OF RECORD.--September 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 354.58 ft (108.076 m) above mean sea level. Prior to July 4, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 36.1 ft³/s or 1.022 m³/s (12.67 in/yr or 322 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,310 ft³/s (93.7 m³/s) Sept. 7 (gage height, 17.43 ft or 5.313 m); minimum daily, 1.3 ft³/s (0.037 m³/s) July 18, 19.

Period of record: Maximum discharge, 13,400 ft³/s (379 m³/s) Oct. 23, 1971 (gage height, 22.33 ft or 6.806 m), from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 29 to Oct. 14, 1954, Sept. 3-5, 12-15, 1963.

Maximum stage since at least 1930, 27.4 ft (8.35 m) in August 1940, from Corps of Engineers floodmark.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1383: 1946-47, 1949. WSP 1433: 1948. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	6.4	5.2	162	32	25	67	11	68	11	7.4	6.5
2	2.5	6.3	5.1	60	28	23	56	14	32	8.1	52	13
3	3.1	5.2	5.1	52	36	22	47	43	29	6.6	84	32
4	3.0	4.4	5.2	209	57	21	46	22	22	5.5	165	413
5	2.5	6.3	6.0	96	34	20	73	20	14	4.6	63	63
6	2.2	11	11	54	30	20	52	127	12	5.1	33	533
7	2.0	5.2	9.0	65	106	22	36	40	11	61	33	2,010
8	3.0	3.9	8.9	46	75	19	34	24	12	14	25	172
9	5.4	3.6	131	109	58	18	624	134	12	7.8	21	84
10	3.9	3.2	33	90	50	17	126	105	9.7	5.3	18	56
11	3.3	3.0	12	57	50	15	67	53	8.2	3.8	16	42
12	2.8	3.1	8.0	42	56	43	50	70	7.0	2.7	14	34
13	2.7	3.3	7.5	30	86	85	47	128	6.2	2.3	12	31
14	2.6	3.0	27	26	96	42	46	52	5.9	2.1	10	25
15	2.3	3.3	13	26	51	30	37	36	5.6	1.9	9.3	24
16	2.8	3.6	22	24	42	179	30	29	5.4	1.7	8.3	23
17	2.1	3.4	35	22	23	219	26	24	6.9	1.5	7.6	22
18	2.1	3.3	30	20	80	70	24	24	5.7	1.3	7.1	22
19	2.3	3.6	24	19	58	49	22	50	4.6	1.3	6.9	21
20	2.9	3.5	106	18	72	51	20	67	4.3	1.6	7.5	19
21	3.3	4.3	1,750	113	45	258	18	35	38	1.7	7.0	19
22	2.8	5.1	252	91	163	154	18	28	13	1.7	7.2	17
23	2.2	.7	72	46	121	68	91	24	8.0	1.9	18	16
24	2.3	.2	58	35	57	52	37	25	25	3.0	14	16
25	2.4	5.1	45	43	44	40	25	21	11	9.0	9.5	15
26	3.0	5.4	53	81	34	35	20	17	54	15	7.6	16
27	3.6	5.5	51	141	29	32	18	41	32	70	6.6	15
28	4.1	5.7	36	71	27	30	16	42	92	16	6.0	15
29	17	6.2	29	98	------	33	15	26	44	8.6	5.6	15
30	12	5.7	27	54	------	228	13	22	19	32	7.5	14
31	6.1	------	37	39	------	175	------	20	------	13	9.6	------
TOTAL	114.1	142.5	2,914.0	2,034	1,730	2,095	1,801	1,474	617.5	321.1	698.7	3,803.5
MEAN	3.68	4.75	94.0	65.6	61.8	67.6	60.0	47.5	2[illegible].6	10.4	22.5	127
MAX	17	11	1,750	209	163	258	624	150	92	70	165	2,010
MIN	1.8	3.0	5.1	18	27	15	13	11	4.3	1.3	5.6	6.5
CFSM	.10	.12	2.43	1.70	1.60	1.75	1.55	1.23	.53	.27	.58	3.28
IN	.11	.14	2.80	1.96	1.66	2.01	1.73	1.42	.59	.31	.67	3.66

CAL YR 1973 TOTAL 17,356.1 MEAN 47.6 MAX 1,750 MIN 1.8 CFSM 1.23 IN 16.68
WTR YR 1974 TOTAL 17,750.4 MEAN 48.6 MAX 2,010 MIN 1.3 CFSM 1.25 IN 17.06

PEAK DISCHARGE (BASE, 1,200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1330	15.30	2,320	9- 7	0530	17.43	3,310
4- 9	1100	11.86	1,220				

02044500 NOTTOWAY RIVER NEAR RAWLINGS, VA.

LOCATION.--Lat 36°59'00", long 77°48'00", Brunswick County, on right bank at downstream side of bridge on State Highway 612 at Harpers Bridge, 0.1 mi (0.2 km) upstream from Beaver Pond Creek, and 2.6 mi (4.2 km) northwest of Rawlings.

DRAINAGE AREA.--309 mi² (800 km²).

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 184.88 ft (56.351 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 291 ft³/s or 8.241 m³/s (12.79 in/yr or 325 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,420 ft³/s (182 m³/s) Sept. 8 (gage height, 12.64 ft or 3.853 m); minimum, 56 ft³/s (1.59 m³/s) July 23, 24 (gage height, 2.57 ft or 0.783 m).

Period of record: Maximum discharge, 29,900 ft³/s (847 m³/s) Oct. 6, 1972 (gage height, 23.25 ft or 7.087 m), from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.40 ft³/s (0.11 m³/s) Oct. 14, 15, 1954; minimum gage height, 1.83 ft (0.558 m) Oct. 15, 1954.

Flood in August 1940 reached a stage of 20.8 ft or 6.34 m (discharge, about 19,000 ft³/s or about 538 m³/s), from information by local resident.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	123	109	530	380	279	946	172	288	191	131	121
2	65	118	100	628	325	265	539	166	466	152	111	116
3	74	109	91	414	311	256	442	371	414	131	126	113
4	86	100	91	490	390	247	394	418	339	113	247	343
5	80	119	95	844	385	234	462	288	256	100	297	979
6	74	172	111	554	316	231	462	442	215	102	234	494
7	68	161	111	409	362	234	371	564	194	342	358	2,310
8	70	141	116	385	514	234	316	366	191	438	404	5,860
9	89	126	442	371	514	223	420	288	191	227	288	2,400
10	102	113	628	596	466	215	1,060	471	185	158	212	541
11	100	102	334	514	423	204	652	476	164	126	172	357
12	102	100	198	394	399	256	428	343	147	106	150	270
13	136	100	164	306	399	380	371	564	134	93	131	215
14	100	102	194	256	447	418	357	559	126	84	121	182
15	86	111	219	238	428	325	343	357	123	80	113	164
16	74	118	231	234	371	320	302	274	123	74	116	155
17	68	109	380	223	554	776	260	231	128	71	106	158
18	62	102	343	208	633	858	242	201	126	68	97	150
19	63	102	238	198	505	476	234	369	116	66	91	141
20	65	100	231	194	486	399	219	628	109	65	93	131
21	66	100	1,030	231	452	428	212	375	175	60	89	126
22	65	104	3,070	635	409	747	204	260	212	59	97	123
23	66	104	3,110	524	709	714	251	223	161	56	128	116
24	68	102	544	352	606	462	357	212	185	57	182	116
25	68	104	362	311	438	371	288	201	182	74	166	113
26	68	102	288	396	362	325	231	178	227	91	136	111
27	70	100	265	790	316	297	208	208	409	621	150	113
28	76	104	242	736	293	279	194	306	306	702	144	121
29	82	131	204	671	------	279	188	297	390	288	123	131
30	121	123	196	628	------	462	182	238	288	169	106	123
31	131	------	204	462	------	1,110	------	242	------	141	118	------
TOTAL	2,496	3,401	13,939	13,722	12,193	12,304	11,135	10,288	6,570	5,105	5,037	16,393
MEAN	80.5	113	450	443	435	397	371	332	219	165	162	546
MAX	136	172	3,110	844	709	1,110	1,060	628	466	702	404	5,860
MIN	59	100	91	194	293	204	182	166	109	56	89	111
CFSM	.26	.37	1.46	1.43	1.41	1.28	1.20	1.07	.71	.53	.52	1.77
IN	.30	.41	1.68	1.65	1.47	1.48	1.34	1.24	.79	.61	.61	1.97

CAL YR 1973 TOTAL 136,382 MEAN 374 MAX 4,970 MIN 59 CFSM 1.21 IN 16.42
WTR YR 1974 TOTAL 117,583 MEAN 308 MAX 5,860 MIN 56 CFSM 1.00 IN 13.55

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-23	0100	9.93	4,320	9- 8	0900	12.64	6,420

02045500 NOTTOWAY RIVER NEAR STONY CREEK, VA.

LOCATION.--Lat 36°54'00", long 77°24'00", Sussex County, on left bank 15 ft (5 m) downstream from upstream bridge on U.S. Highway 301, 1.8 mi (2.9 km) upstream from Island Swamp, 3.3 mi (5.3 km) south of town of Stony Creek, and 4.4 mi (7.1 km) upstream from Stony Creek.

DRAINAGE AREA.--579 mi^2 (1,500 km^2).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 58.42 ft (17.806 m) above mean sea level. Prior to Oct. 11, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--45 years, 537 ft^3/s or 15.21 m^3/s (12.59 in/yr or 320 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,730 ft^3/s (162 m^3/s) Sept. 10 (gage height, 16.00 ft or 4.877 m); minimum, 56 ft^3/s (1.59 m^3/s) Oct. 20 (gage height, 2.59 ft or 0.789 m).

Period of record: Maximum discharge, 25,200 ft^3/s (714 m^3/s) Aug. 17, 1940 (gage height, 23.66 ft or 7.212 m), from rating curve extended above 13,000 ft^3/s (368 m^3/s); minimum, 5.0 ft^3/s (0.14 m^3/s) Sept. 2, 5, 1932 (gage height, 0.62 ft or 0.189 m).

REMARKS.--Records good. Diurnal fluctuation at low flow caused by Baskerville Mill, 33 mi (53 km) upstream. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 802: 1935(M). WSP 972: 1931(M), 1932, 1934-35, 1939. WRD Va. 1970: Drainage area. Revised figures of discharge, in cubic feet per second, for high-water period in water year 1972 superseding figures published in WRD Va. 1972 are given below:

1972		1972	
June 21	379	June 26	4,440
22	3,650	27	859
23	6,440	28	674
24	11,200	29	1,680
25	10,100	30	1,740

Month	Ft^3/s-days	Maximum	Minimum	Mean	Per square mile	Runoff in inches
June 1972	46,687	11,200	161	1,560	2.69	3.00
WTR YR 1972	313,339	12,500	94	856	1.48	20.13
CAL YR 1972	388,809	18,400	94	1,060	1.83	24.98

REVISED PEAK DISCHARGE.--1972: June 24 (1600) 11,900 ft^3/s (19.85 ft).

02045500 NOTTOWAY RIVER NEAR STONY CREEK, VA.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	144	165	1,060	813	569	1,880	262	332	354	168	160
2	79	134	146	1,400	696	543	1,150	255	447	260	153	167
3	124	131	132	1,060	647	522	811	420	641	208	163	289
4	116	117	126	1,060	692	504	707	749	563	179	216	1,210
5	102	128	125	1,460	754	490	695	592	435	157	320	1,370
6	96	201	131	1,340	669	481	772	691	326	146	374	1,230
7	85	235	142	937	664	487	691	874	272	159	847	3,220
8	76	197	156	807	852	509	573	725	248	447	913	4,550
9	74	168	596	810	1,150	499	583	503	246	453	639	5,030
10	87	144	1,010	1,130	1,020	455	856	486	240	276	544	5,230
11	106	128	829	1,120	899	433	1,240	695	223	198	378	1,250
12	104	114	485	893	807	519	753	570	198	160	274	561
13	96	109	328	715	746	742	610	662	177	136	217	429
14	126	109	336	597	736	773	615	874	161	120	185	345
15	110	113	400	545	750	689	590	671	151	109	168	293
16	91	119	496	526	732	619	524	472	147	102	159	262
17	79	130	1,010	506	1,360	1,540	454	372	143	95	158	243
18	72	127	849	477	1,330	1,610	403	323	141	89	146	245
19	63	120	619	443	1,080	1,130	382	300	142	83	131	231
20	57	121	507	426	1,020	813	361	625	136	80	120	214
21	59	123	1,780	469	906	830	339	682	131	78	120	199
22	60	128	2,870	1,090	838	993	325	444	185	73	184	192
23	59	134	3,260	1,080	1,120	1,190	341	342	253	68	331	193
24	59	144	3,560	793	1,180	896	465	307	354	67	224	180
25	60	136	1,040	651	915	704	496	291	331	69	232	168
26	62	138	676	731	750	599	401	265	328	87	223	162
27	62	138	586	1,550	652	543	341	269	635	303	224	160
28	61	139	546	1,520	595	508	311	360	589	1,010	245	162
29	71	172	494	1,610	------	487	293	427	459	659	195	172
30	78	175	472	1,350	------	661	278	371	491	325	158	181
31	124	------	531	1,020	------	1,810	------	324	------	219	140	------
TOTAL	2,579	4,216	24,403	29,176	24,373	23,148	18,240	15,203	9,125	6,769	8,547	28,298
MEAN	83.2	141	787	941	870	747	608	490	304	218	276	943
MAX	126	235	3,560	1,610	1,360	1,810	1,880	874	641	1,010	913	5,230
MIN	57	109	125	426	595	433	278	255	131	67	120	160
CFSM	.14	.24	1.36	1.63	1.50	1.29	1.05	.85	.53	.38	.48	1.63
IN	.17	.27	1.57	1.87	1.57	1.49	1.17	.98	.59	.43	.55	1.82

CAL YR 1973 TOTAL 253,307 MEAN 694 MAX 6,930 MIN 57 CFSM 1.20 IN 16.27
WTR YR 1974 TOTAL 194,079 MEAN 532 MAX 5,230 MIN 57 CFSM .92 IN 12.47

PEAK DISCHARGE (BASE, 3,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-24	1030	13.99	3,920	9-10	0930	16.00	5,730

02046000 STONY CREEK NEAR DINWIDDIE, VA.

LOCATION.--Lat 37°04'01", long 77°36'10", Dinwiddie County, on right bank at upstream side of bridge on U.S. Highway 1, 1.2 mi (1.9 km) southwest of Dinwiddie, 1.7 mi (2.7 km) downstream from Chamberlains Bed Creek, and 5.7 mi (9.2 km) downstream from confluence of White Oak and Butterwood Creeks.

DRAINAGE AREA.--112 mi^2 (290 km^2).

PERIOD OF RECORD.--September 1946 to current year. Published as "at Dinwiddie" September 1946 to September 1947 and October 1949 to September 1950.

GAGE.--Water-stage recorder. Datum of gage is 129.94 ft (39.606 m) above mean sea level. Prior to June 12, 1957, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 103 ft^3/s or 2.917 m^3/s (12.49 in/yr or 317 mm/yr).

EXTREMES.--Current year: Maximum discharge, 777 ft^3/s (22.0 m^3/s) Sept. 7 (gage height, 7.58 ft or 2.310 m); minimum, 1.7 ft^3/s (0.048 m^3/s) July 23 (gage height, 0.99 ft or 0.302 m).

Period of record: Maximum discharge, 11,400 ft^3/s (323 m^3/s) Oct. 6, 1972 (gage height, 20.84 ft or 6.352 m), from rating curve extended above 5,800 ft^3/s (164 m^3/s) on basis of contracted-opening measurement of peak flow; no flow for part of Oct. 13, 1954.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1303: 1947(M). WSP 1433: 1951(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	16	24	429	122	85	320	40	111	31	15	16
2	9.6	14	18	304	103	81	184	37	135	31	13	18
3	20	14	18	190	104	78	132	123	128	42	30	20
4	11	12	17	357	148	76	116	142	98	26	30	122
5	7.2	19	18	396	132	74	128	92	70	19	25	119
6	6.0	30	16	244	105	74	140	184	52	18	18	127
7	5.6	30	16	172	132	76	114	154	45	23	173	697
8	5.6	26	20	148	172	79	94	97	44	22	129	555
9	6.4	22	162	182	184	78	103	78	42	25	124	292
10	6.8	20	155	262	178	74	111	87	39	23	80	134
11	6.8	16	86	196	160	66	98	78	31	18	45	82
12	7.2	13	49	144	146	105	85	73	26	14	30	57
13	6.8	12	38	109	136	178	81	172	23	12	23	42
14	6.8	12	59	91	125	146	85	134	20	9.6	19	33
15	6.0	11	57	85	110	106	80	87	18	8.8	18	28
16	5.2	12	75	82	110	139	72	64	16	7.6	21	25
17	4.8	12	160	78	268	370	63	51	16	6.0	17	22
18	4.8	12	104	72	208	274	58	44	14	5.2	14	20
19	4.5	11	74	67	160	166	54	136	13	4.5	12	18
20	4.5	13	65	65	172	132	52	239	12	3.7	11	17
21	4.2	14	462	84	134	160	49	125	12	3.1	10	16
22	4.2	15	496	184	134	166	48	75	12	2.6	12	18
23	4.8	15	312	138	256	132	68	59	13	2.0	18	18
24	5.6	15	154	101	184	113	83	53	42	2.3	14	16
25	5.6	15	103	93	132	96	72	46	33	2.8	12	16
26	5.2	16	83	176	109	86	60	40	43	4.2	11	15
27	6.0	16	74	402	96	81	52	70	43	62	28	14
28	6.0	16	67	256	89	77	47	89	49	54	47	14
29	8.0	22	58	268	------	78	44	73	48	82	24	15
30	11	21	62	208	------	245	40	61	41	41	20	14
31	14	------	78	154	------	540	------	60	------	23	19	------
TOTAL	214.4	492	3,180	5,737	4,109	4,231	2,733	2,863	1,289	628.4	1,062	2,600
MEAN	6.92	16.4	103	185	147	136	91.1	92.4	43.0	20.3	34.3	86.7
MAX	20	30	496	429	268	540	320	239	135	82	173	697
MIN	4.2	11	16	65	89	66	40	37	12	2.0	10	14
CFSM	.06	.15	.92	1.65	1.31	1.21	.81	.83	.38	.18	.31	.77
IN	.07	.16	1.06	1.91	1.36	1.41	.91	.95	.43	.21	.35	.86

CAL YR 1973 TOTAL 41,489.2 MEAN 114 MAX 2,350 MIN 3.7 CFSM 1.02 IN 13.78
WTR YR 1974 TOTAL 29,138.8 MEAN 79.8 MAX 697 MIN 2.0 CFSM .71 IN 9.68

PEAK DISCHARGE (BASE, 1,200 FT^3/S).--NO PEAK ABOVE BASE.

02047000 NOTTOWAY RIVER NEAR SEBRELL, VA.

LOCATION.--Lat 36°46'13", long 77°09'59", Southampton County, on right bank 1,000 ft (305 m) upstream from bridge on State Highway 653, 1 mi (2 km) downstream from Three Creek, 2.5 mi (4.0 km) southwest of Sebrell, and 5.5 mi (8.8 km) upstream from Assamoosick Swamp.

DRAINAGE AREA.--1,421 mi² (3,680 km²).

PERIOD OF RECORD.--September 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.94 ft (1.811 m) above mean sea level. Prior to Aug. 23, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--33 years, 1,269 ft³/s or 35.97 m³/s (12.13 in/yr or 308 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,810 ft³/s (165 m³/s) Sept. 13 (gage height, 15.70 ft or 4.785 m); minimum, 77 ft³/s (2.18 m³/s) Oct. 25-27; minimum gage height, 3.36 ft (1.024 m) July 25.

Period of record: Maximum discharge, 25,000 ft³/s (708 m³/s) July 22, 1945 (gage height, 24.5 ft or 7.47 m); minimum observed, 12 ft³/s (0.340 m³/s) Oct. 23, 1941.

Flood in August 1940 reached a stage of 29.7 ft (9.05 m), from floodmarks (discharge, 48,000 ft³/s or 1,360 m³/s, from rating curve extended above 25,000 ft³/s or 708 m³/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1333: 1942, 1944, 1948-49. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	100	239	1,410	4,280	1,880	2,690	617	710	644	354	232
2	104	138	251	1,950	3,820	1,700	3,270	580	691	546	258	225
3	116	157	240	2,620	3,100	1,530	3,630	612	792	416	218	321
4	118	155	229	3,020	2,530	1,400	3,700	756	1,040	334	211	504
5	142	169	222	3,190	2,300	1,290	3,100	1,240	1,030	291	275	1,330
6	138	182	230	3,300	2,260	1,220	2,470	1,380	871	277	482	2,160
7	132	195	232	3,500	2,120	1,180	2,250	1,480	706	267	917	2,440
8	120	286	248	3,540	2,010	1,170	2,080	1,830	594	285	1,500	2,740
9	108	286	432	3,270	2,260	1,170	1,830	1,730	533	415	2,210	3,200
10	101	248	794	2,920	2,640	1,170	1,780	1,380	501	565	2,140	3,690
11	98	215	1,430	2,920	2,870	1,110	1,950	1,170	472	400	1,650	4,600
12	108	192	1,550	3,020	2,820	1,130	2,260	1,240	440	291	1,060	5,640
13	121	175	1,200	2,930	2,600	1,360	2,080	1,220	399	232	719	5,760
14	119	163	924	2,500	2,370	1,780	1,720	1,220	360	195	522	4,320
15	116	154	846	2,050	2,160	1,990	1,630	1,530	329	171	398	2,120
16	140	151	961	1,720	2,030	1,930	1,550	1,370	306	152	330	905
17	123	153	1,350	1,490	2,250	2,070	1,390	1,010	293	140	305	590
18	104	159	1,950	1,350	2,780	2,670	1,200	810	280	131	268	496
19	95	166	2,170	1,240	3,290	3,240	1,060	704	262	123	247	449
20	89	163	1,930	1,150	3,510	3,560	964	639	254	116	223	417
21	84	159	1,900	1,100	3,450	3,580	893	997	248	109	202	384
22	80	160	2,540	1,220	3,230	3,140	829	1,410	250	105	191	364
23	80	163	3,180	1,940	2,990	2,870	791	1,170	248	101	257	348
24	79	167	3,630	2,390	2,980	2,810	802	887	413	98	495	341
25	78	176	4,070	2,380	3,090	2,680	930	759	563	99	426	327
26	77	185	4,670	2,080	3,000	2,280	999	673	592	108	339	306
27	77	185	4,620	2,200	2,600	1,930	914	637	518	114	378	286
28	79	190	3,260	2,740	2,200	1,680	797	641	769	211	416	278
29	88	205	2,030	3,440	------	1,530	724	730	816	921	400	271
30	86	232	1,440	3,940	------	1,510	664	845	692	900	354	267
31	90	------	1,270	4,300	------	1,950	------	803	------	547	283	------
TOTAL	3,192	5,429	50,038	76,820	77,540	60,510	50,947	32,070	15,972	9,304	18,028	45,311
MEAN	103	181	1,614	2,478	2,769	1,952	1,698	1,035	532	300	582	1,510
MAX	142	286	4,670	4,300	4,280	3,580	3,700	1,830	1,040	921	2,210	5,760
MIN	77	100	222	1,100	2,010	1,110	664	580	248	98	191	225
CFSM	.07	.13	1.14	1.74	1.95	1.37	1.19	.73	.37	.21	.41	1.06
IN	.08	.14	1.31	2.01	2.03	1.58	1.33	.84	.42	.24	.47	1.19

CAL YR 1973 TOTAL 554,252 MEAN 1,518 MAX 10,200 MIN 77 CFSM 1.07 IN 14.51
WTR YR 1974 TOTAL 445,161 MEAN 1,220 MAX 5,760 MIN 77 CFSM .86 IN 11.65

02047500 BLACKWATER RIVER NEAR DENDRON, VA.

LOCATION.--Lat 37°01'30", long 76°52'30", Surry County, on left bank 10 ft (3 m) upstream from Walls Bridge on State Highway 617, 1.2 mi (1.9 km) downstream from Cypress Swamp, and 3.5 mi (5.6 km) southeast of Dendron.

DRAINAGE AREA.--294 mi² (761 km²).

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 30.99 ft (9.446 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--33 years, 296 ft³/s or 8.383 m³/s (13.67 in/yr or 347 mm/yr).

EXTREMES.--Current year: Maximum discharge, 839 ft³/s (23.8 m³/s) Mar. 21; maximum gage height, 4.58 ft (1.396 m) Jan. 31; minimum discharge, 0.16 ft³/s (0.005 m³/s) July 24 (gage height, 0.76 ft or 0.232 m).

Period of record: Maximum discharge, 5,070 ft³/s (144 m³/s) June 5, 1963 (gage height, 9.1 ft or 2.77 m, from high-water mark in well); no flow at times.

Flood in August 1940 reached a stage of 13.1 ft (3.99 m), from Corps of Engineers floodmarks (discharge, 10,000 ft³/s or 283 m³/s, from rating curve extended above 4,800 ft³/s or 136 m³/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	9.7	39	320	822	428	537	135	76	96	15	44
2	11	12	48	365	780	400	598	113	80	61	11	48
3	25	13	49	434	752	378	624	113	93	37	10	62
4	19	13	46	530	692	348	706	115	73	24	9.9	129
5	18	20	42	608	644	312	755	113	58	17	14	131
6	16	38	39	717	602	289	685	150	48	32	22	206
7	12	41	36	787	566	272	611	162	44	49	49	420
8	9.7	45	38	766	554	263	531	168	54	37	70	650
9	7.7	52	110	738	563	251	486	165	66	26	76	644
10	6.2	49	153	724	572	246	476	175	62	18	90	543
11	5.2	41	236	698	590	242	460	178	44	13	76	486
12	4.5	34	265	680	584	289	430	185	29	9.2	75	579
13	3.7	29	240	638	572	334	395	202	21	6.2	98	630
14	3.0	26	212	566	560	366	430	188	15	3.8	152	598
15	2.3	24	171	488	554	370	430	158	12	2.4	218	486
16	1.7	22	200	410	560	370	415	126	10	8.5	182	361
17	1.4	20	340	370	614	460	370	96	8.5	9.2	122	242
18	1.2	18	440	325	638	567	312	75	7.6	6.8	66	155
19	1.7	18	518	285	668	699	276	62	4.7	4.4	36	117
20	2.2	17	494	252	674	790	255	54	3.7	2.0	22	85
21	2.4	16	596	236	650	832	222	44	3.4	.90	16	58
22	2.6	17	704	248	644	804	198	37	3.8	.50	13	37
23	2.4	17	829	260	656	720	191	28	12	.25	23	31
24	2.4	17	780	260	668	637	178	26	180	.21	52	30
25	2.4	17	686	270	662	555	160	22	316	.40	23	28
26	2.4	17	590	275	620	503	148	18	230	.40	18	25
27	2.3	17	506	370	554	435	135	26	126	4.0	16	22
28	2.2	18	416	542	494	395	127	36	109	12	16	22
29	3.2	21	350	738	------	366	126	34	122	19	21	26
30	4.0	28	305	780	------	395	135	37	124	20	28	23
31	5.7	------	285	822	------	460	------	71	------	19	36	------
TOTAL	188.5	726.7	9,763	15,502	17,506	13,776	11,402	3,112	2,035.7	539.16	1,675.9	6,918
MEAN	6.08	24.2	315	500	625	444	380	100	67.9	17.4	54.1	231
MAX	25	52	829	822	822	832	755	202	316	96	218	650
MIN	1.2	9.7	36	236	494	242	126	18	3.4	.21	9.9	22
CFSM	.02	.08	1.07	1.70	2.13	1.51	1.29	.34	.23	.06	.18	.79
IN	.02	.09	1.24	1.96	2.22	1.74	1.44	.39	.26	.07	.21	.88

CAL YR 1973 TOTAL 99,140.10 MEAN 272 MAX 1,800 MIN 1.2 CFSM .93 IN 12.54
WTR YR 1974 TOTAL 83,144.96 MEAN 228 MAX 832 MIN .21 CFSM .78 IN 10.52

02048000 BLACKWATER RIVER AT ZUNI, VA.

LOCATION.--Lat 36°52'05", long 76°50'07", Isle of Wight County, on left bank at downstream side of bridge on U.S. Highway 460 at Zuni, 1.6 mi (2.6 km) downstream from Pope Swamp, and 4.2 mi (6.8 km) upstream from Antioch Swamp.

DRAINAGE AREA.--456 mi² (1,181 km²).

PERIOD OF RECORD.--October 1942 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 8.56 ft (2.609 m) above mean sea level. Prior to July 18, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--32 years, 463 ft³/s or 13.11 m³/s (13.79 in/yr or 350 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,520 ft³/s (43.0 m³/s) Jan. 31 (gage height, 9.36 ft or 2.853 m); minimum, 3.4 ft³/s (0.10 m³/s) Oct. 27, 28 (gage height, 1.34 ft or 0.408 m).

Period of record: Maximum discharge, 5,800 ft³/s (164 m³/s) June 5, 1963 (gage height, 17.51 ft or 5.337 m); no flow Sept. 10-18, 1944, Sept. 28 to Oct. 31, 1954.

Flood in August 1940 reached a stage of 23.2 ft or 7.07 m (discharge, 16,000 ft³/s or 453 m³/s, from rating curve extended above 5,500 ft³/s or 156 m³/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	6.5	27	700	1,440	820	880	174	124	184	22	29
2	5.6	6.7	30	680	1,340	720	880	166	124	152	20	31
3	19	7.4	37	700	1,260	640	880	184	140	124	19	80
4	54	8.4	52	780	1,210	585	840	184	140	87	19	160
5	99	15	62	940	1,160	532	860	179	124	55	21	174
6	102	45	67	1,030	1,100	498	962	219	96	36	23	218
7	72	57	64	1,120	1,030	465	1,080	240	77	32	117	566
8	42	60	64	1,160	962	435	1,080	253	64	39	184	1,030
9	28	64	162	1,210	940	405	985	253	60	45	179	1,340
10	21	70	246	1,210	962	362	920	260	58	41	219	1,300
11	17	72	260	1,210	962	350	840	246	58	33	189	1,120
12	14	70	297	1,160	940	390	780	240	54	24	174	920
13	11	62	337	1,140	900	498	720	253	46	20	152	740
14	9.6	56	405	1,050	860	568	700	253	35	15	120	680
15	7.8	47	420	962	840	602	680	246	27	12	110	680
16	6.4	41	435	900	820	602	680	234	20	10	128	660
17	5.8	35	550	800	920	760	650	214	17	7.6	170	585
18	5.5	32	660	720	1,030	860	620	184	15	6.6	194	498
19	4.9	28	740	640	1,080	920	550	140	13	6.9	174	390
20	4.4	25	840	585	1,100	940	480	102	12	7.6	120	289
21	4.3	23	985	550	1,050	985	405	80	67	7.0	70	224
22	4.2	22	1,160	532	1,030	1,030	350	62	49	6.3	41	179
23	4.0	22	1,300	498	1,080	1,050	326	54	32	5.4	31	152
24	3.7	22	1,340	498	1,100	1,030	297	50	97	5.0	251	128
25	3.6	22	1,340	532	1,080	962	289	44	224	4.0	246	99
26	3.5	23	1,210	660	1,030	880	274	35	315	3.8	315	77
27	3.4	24	1,080	840	962	820	253	50	420	4.2	315	62
28	3.5	24	962	940	900	760	229	84	420	4.7	214	54
29	4.8	28	840	1,140	------	680	209	77	315	5.4	110	48
30	6.4	26	760	1,340	------	700	189	72	234	13	59	42
31	6.0	------	700	1,480	------	800	------	84	------	22	35	------
TOTAL	581.6	1,044.0	17,432	27,707	29,088	21,649	18,898	4,916	3,477	1,018.5	4,041	12,555
MEAN	18.8	34.8	562	894	1,039	698	630	159	116	32.9	130	419
MAX	102	72	1,340	1,480	1,440	1,050	1,080	260	420	184	315	1,340
MIN	3.4	6.5	27	498	820	350	189	35	12	3.8	19	29
CFSM	.04	.08	1.23	1.96	2.28	1.53	1.38	.35	.25	.07	.29	.92
IN	.05	.09	1.42	2.26	2.37	1.77	1.54	.40	.28	.08	.33	1.02

CAL YR 1973 TOTAL 184,800.4 MEAN 506 MAX 1,970 MIN 3.4 CFSM 1.11 IN 15.08
WTR YR 1974 TOTAL 142,407.1 MEAN 390 MAX 1,480 MIN 3.4 CFSM .86 IN 11.62

02049500 BLACKWATER RIVER NEAR FRANKLIN, VA.

LOCATION.--Lat 36°45'45", long 76°53'55", Southampton County, on right bank 0.4 mi (0.6 km) south of Burdette, 0.5 mi (0.8 km) upstream from Black Creek, 3.3 mi (5.3 km) downstream from Corrowaugh Swamp, and 6.0 mi (9.7 km) north of Franklin.

DRAINAGE AREA.--617 mi² (1,598 km²).

PERIOD OF RECORD.--August 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1.56 ft (0.475 m) above mean sea level.

AVERAGE DISCHARGE.--30 years, 623 ft³/s or 17.64 m³/s (13.71 in/yr or 348 mm/yr), adjusted for diversion.

EXTREMES.--Current year: Maximum discharge, 2,270 ft³/s (64.3 m³/s) Feb. 1 (gage height, 9.33 ft or 2.844 m); minimum daily, 0.72 ft³/s (0.020 m³/s) Oct. 18.

Period of record: Maximum discharge, 9,420 ft³/s (267 m³/s) Sept. 14, 1960 (gage height, 17.14 ft or 5.224 m, from floodmarks); minimum daily, 0.40 ft³/s (0.011 m³/s) Sept. 10, 1944, Oct. 28, 1970.

Flood in August 1940 reached a stage of about 22 ft or 6.7 m (discharge, 21,000 ft³/s or 595 m³/s, from rating curve extended above 9,400 ft³/s or 266 m³/s).

REMARKS.--Records good except those for period of no gage-height record, which are fair. Low flow reversed by tide in some years. Diversion above station by city of Norfolk for municipal supply most years. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	4.1	35	1,000	2,260	1,150	1,330	220	124	264	21	86
2	13	3.5	40	980	2,190	1,030	1,320	171	129	195	25	73
3	18	4.0	45	980	2,020	926	1,270	183	162	150	29	133
4	19	3.4	50	1,100	1,890	832	1,210	204	172	115	35	288
5	43	3.9	55	1,300	1,770	743	1,210	201	135	95	35	395
6	57	5.4	65	1,400	1,660	686	1,310	251	96	66	38	421
7	61	12	90	1,600	1,550	650	1,420	310	79	54	78	738
8	52	24	100	1,700	1,440	615	1,480	321	64	46	287	1,180
9	39	27	130	1,750	1,380	573	1,450	315	54	46	302	1,450
10	26	29	300	1,800	1,350	535	1,380	313	49	52	313	1,600
11	16	35	350	1,800	1,340	498	1,290	296	45	48	349	1,510
12	10	42	400	1,800	1,330	524	1,190	275	41	37	294	1,270
13	9.0	46	450	1,700	1,270	629	1,080	290	36	28	250	1,000
14	8.6	48	500	1,600	1,210	716	1,000	298	34	22	218	784
15	6.7	54	560	1,470	1,130	770	949	286	29	19	176	642
16	4.6	70	640	1,330	1,080	804	897	262	27	18	150	605
17	2.2	85	750	1,190	1,220	1,000	856	232	22	21	150	582
18	.72	86	900	1,070	1,410	1,190	815	199	16	18	166	542
19	1.4	80	1,000	955	1,520	1,260	742	186	11	13	175	478
20	1.8	70	1,100	855	1,610	1,290	661	143	15	11	155	400
21	2.0	60	1,300	779	1,580	1,310	590	89	25	8.3	114	317
22	1.8	40	1,600	741	1,520	1,340	524	73	87	6.5	90	262
23	1.6	33	1,800	723	1,560	1,360	477	77	259	6.7	79	231
24	1.4	28	1,900	714	1,600	1,370	443	62	434	6.8	158	190
25	1.2	24	1,900	711	1,580	1,330	415	51	514	9.6	318	152
26	1.0	22	1,800	810	1,510	1,270	400	41	440	11	390	125
27	.90	20	1,600	1,020	1,390	1,210	367	52	398	11	531	108
28	3.5	22	1,400	1,300	1,270	1,140	327	97	420	10	481	98
29	16	25	1,300	1,650	------	1,040	295	124	422	7.2	306	96
30	15	29	1,200	1,970	------	1,060	262	107	353	7.2	187	87
31	7.7	------	1,100	2,210	------	1,240	------	105	------	17	116	------
TOTAL	452.12	1,035.3	24,460	40,008	42,640	30,092	26,960	5,834	4,692	1,409.3	6,016	15,843
MEAN	14.6	34.5	789	1,291	1,523	971	899	188	156	45.5	194	528
MAX	61	86	1,900	2,210	2,260	1,370	1,480	321	514	264	531	1,600
MIN	.72	3.4	35	711	1,080	498	262	41	11	6.5	21	73
(*)	2.1	12.5	35.7	38.9	13.0	0	0	38.1	20.0	0	0	0
MEAN‡	16.7	47.0	825	1,330	1,536	971	899	226	176	45.5	194	528
CFSM‡	.03	.08	1.34	2.16	2.49	1.57	1.46	.37	.29	.07	.31	.86
IN‡	.04	.09	1.54	2.49	2.59	1.81	1.63	.43	.32	.08	.36	.96

CAL YR 1973 TOTAL 252,154.42 MEAN 691 MAX 2,970 MIN .72 MEAN‡ 700 CFSM‡ 1.13 IN‡ 15.43
WTR YR 1974 TOTAL 199,441.72 MEAN 546 MAX 2,260 MIN .72 MEAN‡ 560 CFSM‡ .91 IN‡ 12.34

* DIVERSION, IN CUBIC FEET PER SECOND, BY CITY OF NORFOLK.
‡ ADJUSTED FOR DIVERSION.
NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO JAN. 14.

02051000 NORTH MEHERRIN RIVER NEAR LUNENBURG, VA.

LOCATION.--Lat 36°59'50", long 78°21'00", Lunenburg County, on right bank at downstream side of bridge on State Highway 40, 0.5 mi (0.8 km) downstream from Tusekiah Creek, 4.6 mi (7.4 km) upstream from Juniper Creek, and 5.2 mi (8.4 km) northwest of Lunenburg.

DRAINAGE AREA.--55.6 mi² (144.0 km²).

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 333.7 ft (101.71 m) above mean sea level (levels by Corps of Engineers). Prior to July 5, 1951, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 49.4 ft³/s or 1.399 m³/s (12.07 in/yr or 307 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,950 ft³/s (112 m³/s) Sept. 7 (gage height, 18.95 ft or 5.776 m), from rating curve extended as explained below; minimum, 3.2 ft³/s (0.091 m³/s) Oct. 19 (gage height, 0.99 ft or 0.302 m).

Period of record: Maximum discharge, 14,400 ft³/s (408 m³/s) Oct. 23, 1971 (gage height, 28.30 ft or 8.626 m), from rating curve extended above 1,700 ft³/s (48.1 m³/s) on basis of slope-area measurement of peak flow; no flow Sept. 5-21, Oct. 8-14, 1954.

Flood in August 1940 reached a stage of 48 ft (14.6 m), from information by local resident.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1303: 1947(M), 1949(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	8.5	9.0	230	39	35	69	24	68	16	9.0	9.8
2	4.7	7.9	9.0	68	35	32	66	29	35	16	109	18
3	6.9	6.7	9.0	57	53	31	56	53	35	14	63	119
4	5.9	6.5	9.2	311	74	30	60	33	26	12	200	279
5	5.1	8.5	10	105	43	28	108	36	21	11	67	38
6	4.3	11	18	60	41	29	72	148	19	40	33	1,190
7	3.6	8.7	12	84	169	30	48	52	18	236	31	1,470
8	6.5	8.1	12	54	104	28	93	36	19	32	24	121
9	9.2	7.9	195	152	82	27	869	160	19	20	23	59
10	6.5	7.5	37	100	76	26	124	87	17	16	20	37
11	5.9	7.5	20	68	72	25	74	49	15	14	17	28
12	5.5	7.7	16	49	76	56	58	94	14	11	14	23
13	5.3	7.9	15	36	96	99	55	114	12	10	14	20
14	5.3	8.1	47	32	81	50	52	50	12	9.5	13	17
15	4.9	8.3	23	31	54	37	43	37	12	9.0	12	17
16	4.5	8.5	38	29	55	275	36	32	13	9.6	11	17
17	4.1	8.3	49	28	164	176	32	27	15	8.8	11	15
18	3.8	8.1	35	25	94	71	30	29	12	8.2	10	16
19	3.9	8.5	28	25	75	52	29	43	11	8.2	13	14
20	4.5	8.5	386	24	90	69	28	33	11	7.6	13	13
21	4.7	9.0	1,730	203	55	433	26	24	14	6.8	10	13
22	4.5	11	350	100	257	154	26	22	14	6.5	13	12
23	4.7	10	100	53	123	77	96	23	11	6.2	19	12
24	5.1	9.8	61	40	68	60	52	24	11	7.2	12	11
25	5.1	9.6	48	53	54	46	39	20	11	8.7	11	11
26	5.3	10	70	137	43	41	35	18	68	31	9.9	12
27	5.3	9.4	72	151	38	38	32	43	30	72	9.4	11
28	5.3	10	40	90	36	36	30	31	75	20	8.8	11
29	14	10	31	120	------	40	28	22	34	12	9.3	12
30	10	9.4	30	65	------	245	26	23	21	16	13	11
31	8.1	------	48	47	------	143	------	21	------	12	11	------
TOTAL	176.3	260.9	3,557.2	2,627	2,247	2,519	2,392	1,437	693	707.3	833.4	3,635.8
MEAN	5.69	8.70	115	84.7	80.3	81.3	79.7	46.4	23.1	22.8	26.9	121
MAX	14	11	1,730	311	257	433	869	160	75	236	200	1,470
MIN	3.6	6.5	9.0	24	35	25	26	18	11	6.2	8.8	9.8
CFSM	.10	.16	2.07	1.52	1.44	1.46	1.43	.83	.42	.41	.48	2.18
IN	.12	.17	2.38	1.76	1.50	1.69	1.60	.96	.46	.47	.56	2.43

CAL YR 1973 TOTAL 22,681.0 MEAN 62.1 MAX 1,740 MIN 3.2 CFSM 1.12 IN 15.18
WTR YR 1974 TOTAL 21,085.9 MEAN 57.8 MAX 1,730 MIN 3.6 CFSM 1.04 IN 14.11

PEAK DISCHARGE (BASE, 2,200 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0030	14.56	2,490	9- 7	0200	18.95	3,950
4- 9	0315	13.93	2,350				

02051500 MEHERRIN RIVER NEAR LAWRENCEVILLE, VA.

LOCATION.--Lat 36°43'00", long 77°49'55", Brunswick County, on right bank 50 ft (15 m) upstream from Gholson Bridge on State Highway 715, 0.6 mi (1.0 km) upstream from Allen Creek, and 3.0 mi (4.8 km) southeast of Lawrenceville.

DRAINAGE AREA.--552 mi^2 (1,430 km^2).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 136.56 ft (41.623 m) above mean sea level. Prior to Nov. 17, 1931, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--46 years, 481 ft^3/s or 13.62 m^3/s (11.83 in/yr or 300 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,400 ft^3/s (295 m^3/s) Sept. 8 (gage height, 24.71 ft or 7.532 m, from floodmarks); minimum, 76 ft^3/s (2.15 m^3/s) Oct. 18, 19 (gage height, 1.90 ft or 0.579 m).

Period of record: Maximum discharge, 38,000 ft^3/s (1,080 m^3/s) Aug. 17, 1940 (gage height, 42.0 ft or 12.80 m, from floodmark), from rating curve extended above 13,000 ft^3/s (368 m^3/s) on basis of velocity-area studies and records for Nottoway River near Stony Creek; minimum, 4.2 ft^3/s (0.12 m^3/s) Oct. 7, 8, 1954; minimum gage height, 0.72 ft (0.219 m) Sept. 23, 24, 1932.

REMARKS.--Records good except those for period Oct. 1-4, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1932(M), 1935. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	148	132	1,360	606	445	1,420	277	364	243	97	145
2	98	124	124	1,590	522	430	792	281	699	185	98	126
3	100	112	120	821	490	414	644	532	1,030	169	101	169
4	97	107	120	855	573	402	602	674	674	162	248	1,920
5	93	126	121	1,650	734	389	615	430	383	142	332	2,240
6	87	194	123	955	519	393	782	759	295	144	330	1,010
7	82	169	126	679	586	397	620	1,050	257	206	582	5,150
8	85	144	148	677	1,140	383	503	547	243	947	395	8,640
9	109	129	672	672	1,130	365	767	426	239	325	474	8,740
10	109	118	1,030	1,400	876	351	2,200	739	229	200	359	2,020
11	107	111	444	1,040	795	338	844	674	210	156	225	532
12	107	111	263	739	679	420	597	466	256	135	169	426
13	97	112	213	584	618	540	532	1,170	215	120	147	361
14	93	114	306	480	606	662	538	1,000	191	112	141	308
15	91	114	385	440	557	490	551	524	172	105	302	274
16	96	115	440	424	547	494	467	402	165	101	234	254
17	81	115	955	406	1,920	1,700	416	345	169	94	169	239
18	77	111	664	383	1,690	1,290	424	311	169	93	147	234
19	76	114	393	366	979	704	414	456	160	91	129	225
20	77	114	414	355	902	602	380	440	150	88	126	211
21	77	112	2,840	410	855	829	357	351	444	85	133	201
22	79	123	5,450	1,600	714	1,820	345	292	515	82	150	198
23	80	124	6,210	966	1,590	1,110	378	265	254	79	171	193
24	82	123	1,140	588	1,060	704	577	263	215	80	174	177
25	82	126	613	494	694	582	494	250	174	93	159	169
26	81	124	519	595	579	507	378	230	171	109	135	165
27	80	123	490	2,260	503	468	344	265	399	141	135	162
28	81	126	486	1,490	464	446	325	315	402	486	126	168
29	91	133	422	1,540	------	434	310	311	428	229	112	203
30	121	138	401	1,300	------	682	295	257	368	139	105	171
31	139	------	438	787	------	2,310	------	256	------	111	151	------
TOTAL	2,825	3,752	26,202	27,906	22,928	21,103	17,911	14,558	9,630	5,452	6,356	35,031
MEAN	91.1	125	845	900	819	681	597	470	321	176	205	1,168
MAX	139	194	6,210	2,260	1,920	2,310	2,200	1,170	1,030	947	582	8,740
MIN	76	107	120	355	464	338	295	230	150	79	97	126
CFSM	.17	.23	1.53	1.63	1.48	1.23	1.08	.85	.58	.32	.37	2.12
IN	.19	.25	1.77	1.88	1.55	1.42	1.21	.98	.65	.37	.43	2.36

CAL YR 1973 TOTAL 224,092 MEAN 614 MAX 10,000 MIN 76 CFSM 1.11 IN 15.10
WTR YR 1974 TOTAL 193,654 MEAN 531 MAX 8,740 MIN 76 CFSM .96 IN 13.05

PEAK DISCHARGE (BASE, 4,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-23	0630	20.28	6,940	9- 8	2330	24.71	10,400

02051600 GREAT CREEK NEAR COCHRAN, VA.

LOCATION.--Lat 36°48'46", long 77°55'19", Brunswick County, on left bank at upstream side of bridge on State Highway 618, 1.4 mi (2.3 km) southwest of Cochran, and 9.5 mi (15.3 km) upstream from Roses Creek.

DRAINAGE AREA.--30.7 mi² (79.5 km²).

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 215.72 ft (657.515 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 27.7 ft³/s or 0.784 m³/s (12.25 in/yr or 311 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,020 ft³/s (28.9 m³/s) Sept. 7 (gage height, 9.40 ft or 2.865 m), from rating curve extended as explained below; minimum, 2.7 ft³/s (0.076 m³/s) July 23, 24 (gage height, 1.88 ft or 0.573 m).

Period of record: Maximum discharge, 7,030 ft³/s (199 m³/s) Oct. 6, 1972 (gage height, 16.65 ft or 5.075 m), from rating curve extended above 600 ft³/s (17.0 m³/s) on basis of contracted-opening measurements at gage heights 12.08 ft (3.682 m), 14.57 ft (4.441 m), and 16.65 ft (5.075 m); minimum, 0.10 ft³/s (0.003 m³/s) Oct. 11, 12, 1965, Sept. 23, 1968; minimum gage height, 1.50 ft (0.457 m) Aug. 19, 1965.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	10	8.6	158	34	29	52	14	33	11	3.6	11
2	4.6	9.0	7.5	68	31	28	41	16	35	9.6	4.5	10
3	4.9	8.9	7.2	46	30	27	35	80	92	9.0	5.7	19
4	4.9	8.0	7.2	80	37	26	34	36	34	7.8	7.2	170
5	4.3	12	7.2	70	29	26	38	25	24	7.2	9.6	57
6	3.9	18	7.5	44	27	27	33	68	20	7.8	10	115
7	3.8	15	7.0	39	47	27	28	36	18	10	93	684
8	3.9	13	13	33	58	25	28	25	19	10	34	199
9	5.4	11	101	58	56	24	36	26	18	8.4	70	71
10	5.9	9.0	34	76	48	23	33	32	17	7.5	24	40
11	5.4	8.1	18	47	42	22	27	24	15	6.6	14	28
12	5.2	7.8	14	37	36	35	26	33	13	5.7	11	23
13	5.2	7.5	14	29	32	42	27	93	13	4.8	9.9	20
14	4.6	7.5	28	26	30	30	30	35	12	4.2	9.0	16
15	4.6	7.5	20	26	29	26	28	26	11	3.6	39	16
16	4.3	7.8	34	25	43	44	24	21	11	3.6	16	15
17	4.9	8.2	64	24	162	101	22	18	12	3.3	10	14
18	4.4	8.2	32	21	70	47	22	17	12	3.3	9.0	14
19	3.6	7.0	22	21	54	37	22	34	10	3.0	8.1	14
20	3.1	7.8	30	21	55	40	20	24	10	3.3	7.5	12
21	2.8	8.6	272	31	39	57	19	18	13	3.0	8.1	11
22	2.8	10	189	48	54	47	20	16	13	2.8	17	10
23	3.3	10	54	29	70	36	26	15	11	2.8	18	11
24	4.0	8.9	38	26	43	34	24	15	12	3.0	14	10
25	4.0	9.2	29	27	38	30	20	13	11	4.2	11	9.9
26	3.8	9.2	26	54	33	28	19	11	29	5.4	16	10
27	4.5	9.2	25	130	30	28	18	20	43	22	10	9.3
28	4.7	9.2	22	62	30	27	17	20	18	13	8.7	12
29	6.0	10	20	94	------	28	16	16	16	7.2	7.8	17
30	8.0	9.6	26	56	------	85	15	15	13	5.4	7.2	12
31	11	------	32	41	------	117	------	16	------	4.5	18	------
TOTAL	145.9	285.2	1,209.2	1,547	1,287	1,203	801	858	609	203.0	530.9	1,660.2
MEAN	4.71	9.51	39.0	49.9	46.0	38.8	26.7	27.7	20.3	6.55	17.1	55.3
MAX	11	18	272	158	162	117	52	93	92	22	93	684
MIN	2.8	7.0	7.0	21	27	22	15	11	10	2.8	3.6	9.3
CFSM	.15	.31	1.27	1.63	1.50	1.26	.87	.90	.66	.21	.56	1.80
IN	.18	.35	1.47	1.87	1.56	1.46	.97	1.04	.74	.25	.64	2.01

CAL YR 1973 TOTAL 12,938.6 MEAN 35.4 MAX 622 MIN 2.8 CFSM 1.15 IN 15.68
WTR YR 1974 TOTAL 10,338.4 MEAN 28.3 MAX 684 MIN 2.8 CFSM .92 IN 12.53

PEAK DISCHARGE (BASE, 300 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	2330	6.05	346	9- 7	0900	9.40	1,020

02052000 MEHERRIN RIVER AT EMPORIA, VA.

LOCATION.--Lat 36°41'24", long 77°32'27", Emporia City, on left bank at downstream side of bridge on U.S. Highway 301 and 1.2 mi (1.9 km) upstream from Falling Run.

DRAINAGE AREA.--747 mi² (1,935 km²).

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder Datum of gage is 67.17 ft (20.473 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--23 years, 645 ft³/s or 18.27 m³/s (11.73 in/yr or 298 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,000 ft³/s (283 m³/s) Sept. 9 (gage height, 21.95 ft or 6.690 m); minimum, 101 ft³/s (2.86 m³/s) July 24 (gage height, 2.65 ft or 0.808 m).

Period of record: Maximum discharge, 21,100 ft³/s (598 m³/s) Oct. 8, 1972 (gage height, 27.38 ft or 8.345 m); minimum, 5.0 ft³/s (0.14 m³/s) Nov. 11, 1954 (gage height, 1.00 ft or 0.305 m); minimum daily, 8 ft³/s (0.23 m³/s) Nov. 8-10, 1954.

Flood in August 1940 reached a stage of 31.5 ft (9.60 m), from floodmarks (discharge, about 40,000 ft³/s or about 1,130 m³/s, from rating curve extended above 18,000 ft³/s or 510 m³/s on basis of record for station near Lawrenceville).

REMARKS.--Records good. Prior to November 1965, low and medium flow regulated by powerplant 0.8 mi (1.3 km) above station. Water-quality records for the current year are included in this report.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	217	199	1,160	1,040	675	2,580	376	400	364	128	209
2	141	190	188	2,310	856	652	1,390	388	726	256	121	180
3	148	171	177	1,400	778	628	986	604	934	220	142	238
4	143	158	176	1,140	830	604	938	934	1,190	215	191	1,480
5	137	199	172	1,850	1,010	580	882	700	628	198	307	3,250
6	128	264	163	1,640	856	604	1,040	960	436	195	484	1,460
7	122	279	206	1,030	752	604	960	1,420	364	202	986	4,150
8	119	222	222	878	1,370	580	752	960	340	788	882	7,130
9	130	199	900	982	1,700	556	752	628	329	604	544	9,420
10	148	176	1,410	1,530	1,390	532	2,120	700	307	296	726	7,110
11	148	166	947	1,670	1,190	508	1,530	1,040	286	216	424	1,620
12	148	161	488	1,120	1,040	604	882	700	276	184	266	700
13	134	161	367	854	934	778	752	965	307	161	216	556
14	129	168	422	664	882	882	752	1,560	256	145	193	448
15	122	171	532	598	830	778	882	856	238	134	216	388
16	120	174	704	576	830	726	700	580	220	131	496	352
17	115	168	1,470	554	1,950	1,730	604	484	220	121	266	329
18	111	166	1,300	510	2,680	2,270	568	424	220	118	215	318
19	110	168	734	488	1,700	1,250	580	508	216	118	188	307
20	112	169	620	466	1,360	960	532	830	204	114	168	296
21	112	171	2,320	510	1,300	1,190	508	556	207	111	188	276
22	114	177	5,160	1,300	1,180	1,750	484	448	726	106	218	286
23	115	185	6,800	1,730	1,700	2,030	508	388	388	105	247	276
24	122	187	4,840	919	1,410	1,140	604	364	286	103	286	256
25	124	188	1,230	734	1,140	908	752	352	247	113	247	247
26	125	187	734	782	908	804	556	318	216	143	207	238
27	124	185	642	1,900	778	726	484	376	307	184	198	238
28	126	195	620	2,660	726	676	436	460	604	388	186	238
29	150	234	576	2,230	-------	652	424	448	436	412	161	266
30	158	204	521	2,230	-------	934	400	388	532	211	146	266
31	190	-------	620	1,420	-------	2,320	-------	352	-------	152	148	-------
TOTAL	4,068	5,660	35,460	37,835	33,120	29,632	25,308	20,067	12,046	6,808	9,391	42,528
MEAN	131	189	1,144	1,220	1,183	956	844	647	402	220	303	1,418
MAX	190	279	6,800	2,660	2,680	2,320	2,580	1,560	1,190	788	986	9,420
MIN	110	158	163	466	726	508	400	318	204	103	121	180
CFSM	.18	.25	1.53	1.63	1.58	1.28	1.13	.87	.54	.29	.41	1.90
IN	.20	.28	1.77	1.88	1.65	1.48	1.26	1.00	.60	.34	.47	2.12

CAL YR 1973 TOTAL 309,356 MEAN 848 MAX 9,910 MIN 110 CFSM 1.14 IN 15.41
WTR YR 1974 TOTAL 261,923 MEAN 718 MAX 9,420 MIN 103 CFSM .96 IN 13.04

PEAK DISCHARGE (BASE, 6,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-23	2330	19.64	7,300	9- 9	1900	21.95	10,000

02052500 FONTAINE CREEK NEAR BRINK, VA.

LOCATION.--Lat 36°36'55", long 77°42'00", Greensville County, on left bank 30 ft (9 m) upstream from bridge on State Highway 603, 0.3 mi (0.5 km) downstream from Quarrel Creek, 3.6 mi (5.8 km) west of Brink, and 10 mi (16 km) southwest of Emporia.

DRAINAGE AREA.--65.2 mi² (168.9 km²).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 152.59 ft (46.509 m) above mean sea level.

AVERAGE DISCHARGE.--21 years, 65.5 ft³/s or 1.855 m³/s (13.64 in/yr or 346 mm/yr).

EXTREMES.--Current year: Maximum discharge, 992 ft³/s (28.1 m³/s) Aug. 7 (gage height, 11.08 ft or 3.377 m); minimum, 0.81 ft³/s (0.023 m³/s) July 23 (gage height, 2.58 ft or 0.786 m).

Period of record: Maximum discharge, 16,000 ft³/s (453 m³/s) Oct. 6, 1972 (gage height, 24.14 ft or 7.358 m, from floodmark), from rating curve extended above 1,200 ft³/s (34.0 m³/s); no flow at times in some years.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	11	16	306	124	75	254	21	36	9.6	1.4	6.8
2	7.3	11	12	258	103	70	142	27	38	7.7	1.3	6.6
3	8.7	9.7	11	157	97	66	103	103	34	6.6	3.4	8.6
4	7.7	8.9	11	157	142	61	99	64	29	5.3	15	204
5	6.5	13	11	167	115	57	172	44	23	4.5	31	164
6	5.3	27	11	120	88	63	172	207	20	5.3	135	86
7	4.0	19	10	103	99	72	115	138	18	13	760	485
8	3.4	14	12	99	138	61	88	66	19	9.1	340	593
9	4.0	11	174	165	182	52	133	45	20	7.0	96	230
10	5.7	10	144	282	133	48	103	51	18	5.5	46	82
11	6.1	8.9	82	202	103	45	77	44	15	12	30	51
12	5.3	8.1	40	133	86	97	66	38	12	7.9	20	40
13	4.5	8.7	32	95	78	167	63	68	10	4.9	15	33
14	4.0	9.1	49	79	73	107	78	47	9.8	3.6	19	26
15	3.3	8.5	45	77	68	74	157	28	9.3	2.8	18	23
16	3.0	9.5	116	74	102	107	129	22	9.1	2.7	12	21
17	2.4	10	330	69	378	272	75	19	9.6	2.3	10	20
18	2.0	9.5	227	60	247	187	64	17	9.1	2.3	9.6	21
19	1.9	9.1	124	57	157	115	68	62	8.2	2.0	9.1	20
20	1.8	10	99	55	167	117	52	208	7.2	1.5	14	17
21	1.9	11	432	67	124	252	45	136	6.8	1.4	11	15
22	1.8	9.9	482	115	192	227	42	49	7.9	1.1	10	20
23	1.9	11	294	103	330	147	58	37	16	.90	55	23
24	2.0	12	133	74	192	107	57	36	30	1.0	28	19
25	2.2	12	94	125	124	89	48	30	17	1.4	16	16
26	2.2	11	81	177	99	95	38	23	11	1.4	12	14
27	2.3	11	76	192	84	115	34	56	11	3.9	13	13
28	2.3	12	69	187	79	95	30	66	12	4.5	20	14
29	4.0	20	58	440	------	85	26	39	12	5.3	12	27
30	10	21	64	334	------	247	24	31	12	3.9	9.3	23
31	12	------	124	187	------	378	------	33	------	2.3	7.9	------
TOTAL	134.8	356.9	3,463	4,716	3,934	3,750	2,592	1,855	490.0	142.70	1,780.0	2,322.0
MEAN	4.35	11.9	112	152	139	121	86.4	59.8	16.3	4.60	57.4	77.4
MAX	12	27	482	440	378	378	254	208	38	13	760	593
MIN	1.8	8.1	10	55	68	45	24	17	6.8	.90	1.3	6.6
CFSM	.07	.18	1.72	2.33	2.13	1.86	1.33	.92	.25	.07	.88	1.19
IN	.08	.20	1.98	2.69	2.23	2.14	1.48	1.06	.28	.08	1.02	1.32

CAL YR 1973 TOTAL 32,825.20 MEAN 89.9 MAX 2,110 MIN 1.8 CFSM 1.38 IN 18.73
WTR YR 1974 TOTAL 25,566.40 MEAN 69.9 MAX 760 MIN .90 CFSM 1.07 IN 14.55

PEAK DISCHARGE (BASE, 850 FT³/S).--AUG. 7 (0930) 992 FT³/S (11.08 FT).

02053800 SOUTH FORK ROANOKE RIVER NEAR SHAWSVILLE, VA.

LOCATION.--Lat 37°08'24", long 80°16'00", Montgomery County, on left bank at bridge on State Highway 637, 0.3 mi (0.5 km) downstream from Georges Run, 1.3 mi (2.1 km) downstream from Elliott Creek, and 2.0 mi (3.2 km) southwest of Shawsville.

DRAINAGE AREA.--110 mi² (285 km²).

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Nonrecording gage. Datum of gage is 1,361.87 ft (415.098 m) above mean sea level. Prior to Aug. 26, 1974, water-stage recorder at same site and datum.

AVERAGE DISCHARGE.--14 years, 103 ft³/s or 2.917 m³/s (12.72 in/yr or 323 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,840 ft³/s (52.1 m³/s) Apr. 4 (gage height, 4.51 ft or 1.375 m); minimum observed, 20 ft³/s (0.566 m³/s) Aug. 28, 29 (gage height, 0.95 ft or 0.290 m).

Period of record: Maximum discharge, 14,200 ft³/s (402 m³/s) June 21, 1972 (gage height, 11.12 ft or 3.389 m, from high-water mark in well), from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of slope-area measurement of peak flow; minimum, 7.5 ft³/s (0.21 m³/s) July 27-29, 1966 (gage height, 0.37 ft or 0.113 m).

Flood of Sept. 30, 1959, reached a stage of 9.89 ft (3.014 m), from information by local resident.

REMARKS.--Records good.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WRD Va. 1969: 1967(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	67	52	475	153	135	141	88	82	51	32	22
2	240	56	48	355	150	125	138	96	99	62	32	22
3	102	50	47	294	168	117	128	112	77	49	33	23
4	67	48	45	289	178	112	1,040	96	67	44	41	51
5	58	54	85	263	150	107	895	94	62	44	44	26
6	50	54	80	225	150	117	500	121	60	60	37	48
7	47	47	67	195	153	122	350	99	122	51	34	118
8	54	45	63	162	150	107	294	94	88	46	39	118
9	52	45	125	178	133	105	258	108	74	46	42	32
10	50	45	116	175	128	102	216	99	80	41	41	48
11	47	42	91	192	122	102	185	94	80	39	36	128
12	47	45	73	188	117	122	170	190	62	37	34	65
13	43	45	75	168	128	135	153	223	58	36	33	102
14	43	45	110	156	135	128	152	163	65	33	32	42
15	43	45	96	150	130	125	152	141	65	32	33	33
16	42	45	88	135	133	130	148	121	67	36	33	30
17	42	43	78	125	138	133	149	105	65	33	39	30
18	43	43	75	125	141	117	148	112	58	33	33	30
19	45	43	71	122	175	120	141	102	51	39	32	26
20	45	42	185	117	232	133	131	91	49	37	32	24
21	45	45	605	274	199	252	124	88	48	33	31	22
22	45	60	330	283	294	302	118	85	48	32	30	22
23	45	47	200	225	294	232	134	96	48	34	29	22
24	45	45	153	192	240	192	118	85	48	39	41	22
25	45	43	131	232	202	156	112	77	46	41	32	22
26	45	43	526	283	159	144	135	72	46	51	133	22
27	47	54	883	360	150	133	132	82	49	49	29	21
28	52	67	430	294	141	125	99	72	96	42	20	21
29	100	63	272	240	------	128	96	67	98	41	22	23
30	63	58	217	195	------	176	94	85	60	36	22	26
31	60	------	248	171	------	159	------	82	------	33	22	------
TOTAL	1,813	1,465	5,665	6,838	4,643	4,393	6,600	3,240	2,018	1,280	1,123	1,241
MEAN	58.5	48.8	183	221	166	142	220	105	67.3	41.3	36.2	41.4
MAX	240	67	883	475	294	302	1,040	223	122	62	133	128
MIN	42	42	45	117	117	102	94	67	46	32	20	21
CFSM	.53	.44	1.66	2.01	1.51	1.29	2.00	.95	.61	.38	.33	.38
IN	.61	.50	1.92	2.31	1.57	1.49	2.23	1.10	.68	.43	.38	.42

CAL YR 1973 TOTAL 51,576 MEAN 141 MAX 2,730 MIN 36 CFSM 1.28 IN 17.44
WTR YR 1974 TOTAL 40,319 MEAN 110 MAX 1,040 MIN 20 CFSM 1.00 IN 13.64

PEAK DISCHARGE (BASE, 800 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	2230	3.61	1,200	8-26	0400	3.08	910
4- 4	1600	4.51	1,840				

02054500 ROANOKE RIVER AT LAFAYETTE, VA.

LOCATION.--Lat 37°14'11", long 80°12'34", Montgomery County, on right bank 120 ft (37 m) upstream from bridge on State Highway 603 at Lafayette, 0.4 mi (0.6 km) downstream from confluence of North and South Forks, and 1.1 mi (1.8 km) upstream from Cove Hollow.

DRAINAGE AREA.--257 mi² (666 km²).

PERIOD OF RECORD.--September 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,174.47 ft (357.978 m) above mean sea level. Prior to July 30, 1949, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--31 years, 239 ft³/s or 6.768 m³/s (12.63 in/yr or 321 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,860 ft³/s (109 m³/s) Apr. 4 (gage height, 6.37 ft or 1.942 m); minimum, 51 ft³/s (1.44 m³/s) Aug. 28; minimum gage height, 1.06 ft (0.323 m) Aug. 24.

Period of record: Maximum discharge, 24,500 ft³/s (694 m³/s) June 21, 1972 (gage height, 15.60 ft or 4.755 m, from floodmarks), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 10 ft³/s (0.28 m³/s) Jan. 14, 15, 18, 19, 1959.

Flood in August 1940 reached a stage of 12.2 ft (3.72 m), from information by local residents (discharge, 19,000 ft³/s or 538 m³/s, from rating curve extended above 12,000 ft³/s or 340 m³/s).

REMARKS.--Records good. Occasional diurnal fluctuation caused by meat processing plant above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1333: 1944-47(M), 1948-49.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	140	149	1,360	380	294	332	155	145	102	64	57
2	304	129	122	818	355	266	314	158	158	118	72	59
3	271	113	125	669	370	252	290	185	142	95	135	66
4	149	106	119	652	365	241	1,960	162	124	87	100	100
5	122	113	290	586	319	227	1,780	158	116	87	116	72
6	107	116	314	519	306	248	920	195	116	110	87	101
7	101	107	221	444	306	306	644	168	158	105	77	297
8	106	104	184	365	298	286	527	158	139	92	79	139
9	107	101	621	471	276	273	456	172	127	92	108	108
10	98	98	512	488	248	263	375	165	121	84	118	148
11	95	95	519	542	256	255	325	158	129	82	92	388
12	92	92	245	520	248	334	333	236	110	79	82	191
13	90	92	227	438	266	564	289	321	105	77	75	220
14	90	92	256	385	290	432	278	248	113	72	70	148
15	86	92	241	350	286	373	266	212	124	72	116	124
16	86	92	227	319	290	346	245	191	124	75	82	116
17	81	90	221	286	302	332	234	175	124	72	82	105
18	81	90	188	299	342	286	234	165	108	72	72	102
19	81	90	181	265	427	282	216	172	100	77	70	95
20	84	87	370	234	570	294	205	155	95	79	68	92
21	86	92	1,660	618	476	655	198	148	89	72	64	89
22	81	116	790	614	602	762	191	142	89	68	59	89
23	84	101	515	488	625	586	212	152	89	68	57	87
24	86	95	416	422	526	476	191	148	89	77	70	82
25	86	92	355	537	449	385	182	132	87	77	64	82
26	81	95	1,240	773	360	337	175	124	87	97	138	82
27	81	162	1,740	928	328	306	168	132	87	105	70	79
28	84	191	872	735	306	282	165	127	135	84	57	87
29	167	201	603	662	------	278	159	121	175	79	55	89
30	137	165	498	532	------	400	158	142	118	72	57	79
31	128	------	453	449	------	383	------	135	------	68	57	------
TOTAL	3,442	3,349	14,474	16,679	10,170	10,996	11,988	5,212	3,523	2,596	2,513	3,573
MEAN	111	111	467	538	363	355	400	168	117	83.7	81.1	119
MAX	304	201	1,740	1,360	625	762	1,960	321	175	118	138	388
MIN	81	87	119	234	248	227	158	121	87	68	55	57
CFSM	.43	.43	1.82	2.09	1.41	1.38	1.56	.65	.46	.33	.32	.46
IN	.50	.48	2.10	2.41	1.47	1.59	1.74	.75	.51	.38	.36	.52

CAL YR 1973 TOTAL 122,533 MEAN 336 MAX 5,340 MIN 76 CFSM 1.31 IN 17.74
WTR YR 1974 TOTAL 88,516 MEAN 243 MAX 1,960 MIN 55 CFSM .95 IN 12.81

PEAK DISCHARGE (BASE, 3,500 FT³/S).--APR. 4 (1730) 3,860 FT³/S (6.37 FT).

02055000 ROANOKE RIVER AT ROANOKE, VA.

LOCATION.--Lat 37°15'30", long 79°56'20", Roanoke City, on left bank 50 ft (15 m) downstream from Walnut Street Bridge, 3.2 mi (5.1 km) upstream from Tinker Creek, and at mile 360.6.

DRAINAGE AREA.--395 mi² (1,023 km²).

PERIOD OF RECORD.--February 1899 to current year. Monthly discharge only for some periods, published in WSP 1303. Records for July 1896 to January 1899 published in WSP 11, 15, and 27, and 20th Annual Report, Part 4, are unreliable, due to doubtful gage-height record, and should not be used.

GAGE.--Water-stage recorder. Datum of gage is 906.84 ft (276.405 m) above mean sea level (levels by Corps of Engineers). Prior to June 7, 1937, nonrecording gage on downstream side of highway bridge 50 ft (15 m) upstream at same datum.

AVERAGE DISCHARGE.--75 years, 373 ft³/s or 10.56 m³/s (12.82 in/yr or 326 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,740 ft³/s (134 m³/s) Apr. 4 (gage height, 6.53 ft or 1.990 m); minimum, 58 ft³/s (1.64 m³/s) Aug. 30 (gage height, 0.56 ft or 0.171 m).

Period of record: Maximum discharge, 25,300 ft³/s (716 m³/s) June 21, 1972 (gage height, 19.61 ft or 5.977 m, from floodmarks); practically no flow Dec. 23, 1909, Dec. 19, 1963, when flow was retarded by freezing (gage height, 0.0 ft or 0.00 m); minimum daily, 27 ft³/s (0.76 m³/s) Feb. 20, 1934.

REMARKS.--Records good. Prior to 1949, diurnal fluctuation at low flow caused by powerplants above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1928, 1930, 1933. WSP 1433: 1899-1904, 1914-17(M), 1918-24, 1925-27(M), 1929-34(M), 1935, 1936-39(M). WRD Va. 1970: Drainage area. WRD Va. 1972: 1928(M), 1940(M). See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	169	196	1,870	591	432	521	217	190	141	78	72
2	585	163	181	1,250	534	395	491	228	221	128	175	66
3	347	143	163	942	544	369	459	262	195	127	166	116
4	216	135	154	858	534	345	1,960	236	160	107	150	101
5	156	143	306	784	469	325	3,060	228	145	109	157	100
6	140	140	575	704	441	345	1,720	262	137	120	132	303
7	128	135	352	627	436	415	1,020	237	189	156	106	406
8	123	128	275	544	446	403	825	219	186	126	131	221
9	130	123	808	596	418	384	727	233	166	111	128	149
10	121	121	845	682	369	371	617	232	168	102	146	134
11	114	118	519	715	360	365	533	214	160	95	127	407
12	111	116	385	732	352	489	479	360	143	94	108	259
13	107	114	339	638	378	799	455	525	128	90	100	279
14	107	111	339	570	414	675	428	403	174	86	92	178
15	102	114	335	524	422	586	420	325	162	81	112	140
16	98	111	322	479	430	547	374	278	161	79	111	122
17	94	111	322	427	486	521	354	243	173	82	98	111
18	94	114	254	362	513	455	351	239	144	97	96	103
19	94	109	253	356	564	437	322	228	128	93	91	96
20	96	107	436	339	709	452	305	207	119	89	85	91
21	98	121	2,090	833	655	773	291	194	113	85	80	88
22	96	130	1,260	975	759	1,150	280	186	111	78	73	88
23	96	138	744	755	838	845	304	196	110	78	76	85
24	96	123	639	654	713	705	285	198	106	96	68	80
25	96	121	565	726	634	597	266	170	106	97	80	79
26	96	123	1,070	975	546	526	253	161	105	214	129	78
27	96	175	2,730	1,390	492	479	244	170	130	195	117	78
28	111	253	1,340	1,110	453	439	238	162	197	121	76	87
29	190	250	871	949	------	419	229	150	245	101	67	91
30	199	226	715	778	------	545	222	177	183	93	62	83
31	160	------	738	665	------	597	------	185	------	83	64	------
TOTAL	4,476	4,188	20,171	23,829	14,505	16,190	18,033	7,325	4,655	3,354	3,281	4,291
MEAN	144	140	651	769	518	522	601	236	155	108	106	143
MAX	585	253	2,730	1,870	838	1,150	3,060	525	245	214	175	407
MIN	94	107	154	339	352	325	222	150	105	78	62	66
CFSM	.35	.35	1.65	1.95	1.31	1.32	1.52	.60	.39	.27	.27	.36
IN	.42	.39	1.90	2.24	1.37	1.52	1.70	.69	.44	.32	.31	.40

CAL YR 1973 TOTAL 181,763 MEAN 498 MAX 6,590 MIN 85 CFSM 1.26 IN 17.12
WTR YR 1974 TOTAL 124,298 MEAN 341 MAX 3,060 MIN 62 CFSM .86 IN 11.71

PEAK DISCHARGE (BASE, 2,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1300	4.64	2,710	4- 4	2100	6.53	4,740
12-27	0430	5.29	3,360				

02055100 TINKER CREEK NEAR DALEVILLE, VA.

LOCATION.--Lat 37°25'03", long 79°56'08", Botetourt County, on left bank 1,100 ft (335 m) downstream from Norfolk and Western Railway bridge, 0.2 mi (0.3 km) downstream from unnamed tributary, 0.5 mi (0.8 km) south of Glebe Mills, and 1.3 mi (2.1 km) northwest of Daleville.

DRAINAGE AREA.--11.7 mi² (30.3 km²).

PERIOD OF RECORD.--April 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,217.47 ft (371.085 m) above mean sea level (Norfolk and Western Railway bench mark).

AVERAGE DISCHARGE.--18 years, 11.5 ft³/s or 0.326 m³/s (13.35 in/yr or 339 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,580 ft³/s (101 m³/s) July 26 (gage height, 9.55 ft or 2.911 m), from rating curve extended as explained below; minimum, 2.8 ft³/s (0.079 m³/s) Sept. 30; minimum gage height, 1.25 ft (0.381 m) July 13, 14, 15.

Period of record: Maximum discharge, 4,000 ft³/s (113 m³/s) June 21, 1972 (gage height, 9.82 ft or 2.993 m), from rating curve extended above 100 ft³/s (2.83 m³/s) on basis of contracted-opening measurement at gage height 9.82 ft (2.993 m) and slope-area measurements at gage heights 8.52 ft (2.597 m) and 9.82 ft (2.993 m); minimum, 0.20 ft³/s (0.006 m³/s) Jan. 24, 1961, result of freezeup; minimum daily, 0.90 ft³/s (0.025 m³/s) July 26, 1966; minimum gage height, 0.99 ft (0.302 m) June 12, 24, 1970.

Flood in 1940 reached a stage of 9.0 ft (2.74 m), from information by local resident.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1904: 1958-60(P). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	8.7	6.9	44	19	12	12	6.9	7.0	4.6	4.9	4.5
2	31	7.6	6.4	32	18	11	11	7.4	8.1	4.7	22	5.6
3	9.9	7.3	6.4	29	19	11	11	8.1	6.3	4.2	21	7.0
4	6.7	6.6	6.1	27	17	10	61	7.0	5.6	4.1	15	5.8
5	5.6	7.6	43	25	15	9.8	35	7.8	5.3	4.2	11	4.8
6	5.2	6.4	16	23	15	11	24	7.7	5.3	4.5	7.8	20
7	5.1	5.6	10	22	15	10	20	6.9	5.1	4.8	6.9	4.3
8	5.4	5.5	8.3	20	15	9.7	18	6.6	5.0	4.1	8.3	6.1
9	5.4	5.8	50	25	14	9.3	16	7.3	4.9	4.0	36	5.4
10	5.4	5.6	23	22	13	8.8	15	6.8	4.8	3.8	14	5.4
11	5.2	5.3	15	27	13	9.5	14	6.5	4.6	3.8	8.3	5.7
12	5.1	4.9	12	23	13	27	13	31	4.5	3.8	7.8	5.4
13	5.1	4.5	12	21	13	24	13	16	4.5	3.7	6.9	14
14	5.1	4.5	11	20	13	18	13	10	5.2	3.6	6.1	6.1
15	5.0	4.4	9.8	20	12	15	12	8.5	4.8	3.6	5.7	5.2
16	5.0	4.6	9.8	19	12	15	11	7.7	5.6	3.9	5.4	4.9
17	5.0	4.4	9.8	17	14	13	11	13	6.1	3.8	5.2	4.5
18	5.1	4.5	9.0	16	14	12	10	9.8	4.7	4.3	5.0	4.4
19	5.9	4.5	8.3	16	14	12	9.7	7.9	4.4	4.5	5.0	4.2
20	6.2	4.4	28	15	13	12	9.3	7.4	4.2	4.2	4.9	3.9
21	6.4	4.8	60	48	13	25	8.9	7.0	4.3	4.0	4.7	3.8
22	6.3	4.8	29	27	18	18	8.7	6.7	4.5	3.9	4.5	3.8
23	6.4	4.4	25	22	15	15	9.1	6.9	4.4	4.0	5.9	3.6
24	6.3	4.4	23	22	14	14	8.2	6.3	4.4	5.9	4.7	3.5
25	6.4	4.4	21	25	13	13	8.0	6.0	4.4	4.6	4.5	3.5
26	6.4	6.1	82	32	12	12	7.7	5.7	4.4	215	4.7	3.4
27	6.6	11	53	29	12	12	7.6	6.0	4.2	35	4.5	3.2
28	7.5	9.0	36	27	12	11	7.5	5.6	5.9	13	5.4	3.2
29	11	8.3	30	25	------	11	7.4	5.5	6.6	7.0	5.2	3.2
30	10	7.3	26	22	------	18	7.1	6.9	4.7	6.1	4.5	2.9
31	8.3	------	44	20	------	13	------	6.3	------	5.2	4.5	------
TOTAL	221.1	177.2	729.8	762	400	422.1	419.2	259.2	153.8	385.9	260.3	165.3
MEAN	7.13	5.91	23.5	24.6	14.3	13.6	14.0	8.36	5.13	12.4	8.40	5.51
MAX	31	11	82	48	19	27	61	31	8.1	215	36	20
MIN	5.0	4.4	6.1	15	12	8.8	7.1	5.5	4.2	3.6	4.5	2.9
CFSM	.61	.51	2.01	2.10	1.22	1.16	1.20	.71	.44	1.06	.72	.47
IN	.70	.56	2.32	2.42	1.27	1.34	1.33	.82	.49	1.23	.83	.53

CAL YR 1973 TOTAL 6,913.8 MEAN 18.9 MAX 440 MIN 4.4 CFSM 1.62 IN 21.98
WTR YR 1974 TOTAL 4,355.9 MEAN 11.9 MAX 215 MIN 2.9 CFSM 1.02 IN 13.85

PEAK DISCHARGE (BASE, 250 FT³/S).--JULY 26 (2100) 3,580 FT³/S (9.55 FT).

02056000 ROANOKE RIVER AT NIAGARA, VA.

LOCATION.--Lat 37°15'18", long 79°52'18", Roanoke County, on right bank 200 ft (60 m) downstream from powerplant of Appalachian Power Co. at Niagara, 2 mi (3 km) downstream from Tinker Creek, 2.1 mi (3.4 km) southeast of Vinton, and at mile 355.3.

DRAINAGE AREA.--512 mi² (1,326 km²).

PERIOD OF RECORD.--July 1926 to current year.

GAGE.--Water-stage recorder. Datum of gage is 820.15 ft (249.982 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--48 years, 507 ft³/s or 14.36 m³/s (13.45 in/yr or 342 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,880 ft³/s (167 m³/s) Apr. 4 (gage height, 9.63 ft or 2.935 m); minimum, 11 ft³/s (0.31 m³/s) Oct. 15 (gage height, 0.45 ft or 0.137 m); minimum daily, 142 ft³/s (4.02 m³/s) July 13.

Period of record: Maximum discharge, 28,800 ft³/s (816 m³/s) June 21, 1972 (gage height, 18.98 ft or 5.785 m), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.0 ft³/s (0.028 m³/s) Oct. 16, 20, 1956; minimum daily, 8 ft³/s (0.23 m³/s) Oct. 9, 1954; minimum gage height, 0.17 ft (0.052 m) Aug. 25, 1971.

REMARKS.--Records good. Flow regulated by dam and powerplant 200 ft (60 m) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1927(M), 1929(M), 1934(M), 1937(M). WSP 1303: 1928, 1930, 1933-38, 1940. WRD Va. 1970: Drainage area. WRD Va. 1972: 1928(M), 1930(M), 1933(M), 1935-36(M), 1938(M), 1940, 1944-45(M), 1948-49(M), 1951(M), 1955(M), 1960(M), 1967(M), 1969(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	368	274	263	2,330	857	615	693	338	321	259	146	220
2	1,050	266	278	1,690	769	563	654	357	450	235	563	170
3	556	244	236	1,330	783	534	614	397	347	251	394	369
4	384	232	258	1,220	750	500	2,410	370	250	187	316	239
5	286	239	436	1,110	673	479	3,790	365	285	226	321	218
6	256	228	744	1,000	621	514	1,950	400	258	245	279	562
7	240	228	495	954	624	578	1,390	369	308	252	201	704
8	236	217	400	780	649	561	1,150	361	309	233	369	404
9	259	221	1,100	855	612	529	1,020	362	285	197	287	320
10	241	197	1,110	975	541	508	852	360	296	208	312	280
11	183	195	690	1,030	538	500	732	351	293	157	243	850
12	261	201	543	1,030	522	724	676	640	266	206	240	550
13	214	204	483	903	552	1,100	638	716	233	142	230	600
14	196	194	499	815	589	935	609	560	348	163	192	350
15	177	202	480	762	597	817	602	476	282	181	233	290
16	225	199	454	728	601	754	549	430	294	174	207	250
17	195	190	465	654	708	709	520	407	314	166	201	230
18	181	193	410	584	737	635	514	471	253	240	194	220
19	188	182	383	558	774	597	474	370	230	222	221	200
20	172	209	689	484	954	618	459	355	220	151	198	190
21	195	200	2,650	1,390	897	1,020	426	343	208	158	186	190
22	192	228	1,630	1,390	1,080	1,460	436	325	205	158	178	185
23	172	218	1,060	1,080	1,170	1,130	447	365	216	152	174	180
24	193	199	883	954	990	953	421	333	208	228	175	170
25	197	196	756	1,090	909	818	397	293	203	192	163	170
26	158	195	1,460	1,420	766	705	410	281	215	423	270	165
27	177	314	3,230	1,810	684	652	348	293	267	670	231	170
28	225	368	1,690	1,530	631	601	346	290	381	251	191	180
29	363	355	1,170	1,350	------	580	346	276	414	232	159	190
30	323	324	954	1,130	------	749	341	333	297	202	144	180
31	269	------	1,070	976	------	792	------	311	------	182	171	------
TOTAL	8,352	6,912	26,989	33,912	20,576	22,233	24,214	11,898	8,466	6,983	7,389	9,096
MEAN	269	230	871	1,094	735	717	807	384	282	225	238	303
MAX	1,050	368	3,230	2,330	1,170	1,460	3,790	716	450	670	563	850
MIN	158	182	236	484	522	479	341	276	203	142	144	165
CFSM	.53	.45	1.70	2.14	1.44	1.40	1.58	.75	.55	.44	.46	.59
IN	.61	.50	1.96	2.46	1.50	1.62	1.76	.86	.62	.51	.54	.66

CAL YR 1973 TOTAL 279,100 MEAN 765 MAX 12,800 MIN 151 CFSM 1.49 IN 20.28
WTR YR 1974 TOTAL 187,022 MEAN 512 MAX 3,790 MIN 142 CFSM 1.00 IN 13.59

PEAK DISCHARGE (BASE, 3,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0230	8.32	4,180	4- 4	2330	9.63	5,880

02058400 PIGG RIVER NEAR SANDY LEVEL, VA.

LOCATION.--Lat 36°56'45", long 79°31'30", Pittsylvania County, on left bank 300 ft (90 m) downstream from Harpen Creek, 0.5 mi (0.8 km) upstream from bridge on State Highway 40, and 1.1 mi (1.8 km) south of Sandy Level.

DRAINAGE AREA.--350 mi^2 (906 km^2).

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 617.00 ft (188.062 m) above mean sea level (Corps of Engineers bench mark). Prior to Nov. 18, 1963, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--11 years, 359 ft^3/s or 10.17 m^3/s (13.93 in/yr or 354 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,370 ft^3/s (209 m^3/s) Dec. 21 (gage height, 13.09 ft or 3.990 m); minimum, 144 ft^3/s (4.08 m^3/s) July 23 (gage height, 2.64 ft or 0.805 m).

Period of record: Maximum discharge, 22,700 ft^3/s (643 m^3/s) June 22, 1972 (gage height, 24.07 ft or 7.337 m), from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement of peak flow; minimum, 40 ft^3/s (1.13 m^3/s) Aug. 21, 22, 24-26, 1963 (gage height, 2.00 ft or 0.610 m).

REMARKS.--Records good except those for periods of no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	322	387	1,560	441	376	465	320	578	236	168	185
2	1,030	300	427	778	427	365	425	330	757	221	168	232
3	718	272	334	577	465	359	398	445	652	212	168	280
4	358	264	230	561	489	347	3,230	386	422	202	310	296
5	284	234	331	562	429	339	4,190	334	354	202	1,280	272
6	250	304	789	499	413	347	1,480	411	329	224	336	1,350
7	244	284	394	475	523	350	764	378	315	309	244	3,720
8	292	264	310	432	511	338	615	329	306	240	244	848
9	309	260	2,260	562	489	330	619	378	304	224	284	462
10	276	248	1,340	659	453	325	527	526	292	216	272	350
11	256	240	542	545	440	322	478	392	296	206	256	538
12	244	240	408	523	429	373	453	623	281	206	244	506
13	244	244	355	446	430	428	453	1,180	264	185	248	332
14	240	245	391	416	426	372	447	497	273	168	206	296
15	232	243	347	403	429	338	424	395	291	168	196	264
16	220	243	343	392	425	335	398	356	284	213	192	256
17	216	232	396	376	495	350	390	332	289	192	199	287
18	213	230	351	362	581	325	394	322	265	174	240	244
19	216	233	329	348	526	319	380	382	251	154	322	236
20	216	234	650	344	540	347	365	329	287	160	240	220
21	220	237	5,840	3,120	462	1,060	357	324	276	157	206	213
22	220	274	2,010	2,200	554	1,020	351	314	250	147	188	210
23	220	267	733	777	706	522	414	354	242	144	192	202
24	220	244	574	584	514	442	381	480	237	150	178	195
25	220	242	496	603	462	393	347	334	223	160	182	196
26	220	240	594	650	415	369	340	303	234	711	276	196
27	216	238	2,270	787	394	358	335	401	233	610	244	196
28	473	258	802	651	385	348	328	381	271	370	182	199
29	722	290	557	595	------	354	324	326	327	248	174	205
30	452	257	509	519	------	614	319	326	276	206	178	205
31	318	------	613	472	------	667	------	366	------	182	185	----
TOTAL	9,845	7,683	25,912	21,778	13,253	13,132	20,391	12,555	9,669	7,207	7,992	13,194
MEAN	318	256	836	703	473	424	680	405	322	232	258	440
MAX	1,030	322	5,840	3,120	706	1,060	4,190	1,180	757	711	1,280	3,720
MIN	213	230	230	344	385	319	319	303	223	144	168	185
CFSM	.91	.73	2.39	2.01	1.35	1.21	1.94	1.16	.92	.66	.74	1.26
IN.	1.05	.82	2.75	2.31	1.41	1.40	2.17	1.33	1.03	.77	.85	1.40

CAL YR 1973 TOTAL 208,656 MEAN 572 MAX 5,840 MIN 213 CFSM 1.63 IN 22.18
WTR YR 1974 TOTAL 162,611 MEAN 446 MAX 5,840 MIN 144 CFSM 1.27 IN 17.28

PEAK DISCHARGE (BASE, 4,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1730	13.09	7,370	4- 4	1930	11.89	6,520
1-21	1830	10.65	5,660	9- 7	0400	10.40	5,480

NOTE.--NO GAGE-HEIGHT RECORD OCT. 5 TO NOV. 12 AND JULY 16 TO SEPT. 30.

02059500 GOOSE CREEK NEAR HUDDLESTON, VA.

LOCATION.--Lat 37°10'23", long 79°31'14", Bedford County, on left bank 0.3 mi (0.5 km) upstream from Haden Bridge on State Highway 732, 0.4 mi (0.6 km) upstream from Rockcastle Creek, and 3.5 mi (5.6 km) northwest of Huddleston.

DRAINAGE AREA.--188 mi² (487 km²).

PERIOD OF RECORD.--March 1925 to August 1928 (gage heights only), September 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 592.91 ft (180.719 m) above mean sea level. Mar. 15, 1925, to Aug. 4, 1928, nonrecording gage at site 1,300 ft (396 m) downstream at different datum.

AVERAGE DISCHARGE.--44 years, 173 ft³/s or 4.899 m³/s (12.50 in/yr or 318 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,790 ft³/s (107 m³/s) Jan. 21 (gage height, 10.32 ft or 3.146 m); minimum, 66 ft³/s (1.87 m³/s) July 21-23 (gage height, 1.38 ft or 0.421 m).

Period of record: Maximum discharge, 20,300 ft³/s (575 m³/s) Oct. 19, 1937 (gage height, 25.75 ft or 7.849 m, from floodmarks), from rating curve extended above 11,000 ft³/s (312 m³/s) on basis of slope-area measurements at gage heights 19.25 ft (5.867 m) and 24.1 ft (7.35 m); minimum, 3 ft³/s (0.085 m³/s) Aug. 31, 1932, Jan. 30, 1934.

REMARKS.--Records good. Prior to October 1954, diurnal fluctuation at low flow caused by mill above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 892: 1933, 1935(M), 1939. WSP 972: 1931-32(M), 1934(M), 1935-38, 1940, 1941(M). WSP 1082: 1940(P). WSP 1142: 1938-40(M). WRD Va. 1970: Drainage area. WRD Va. 1971: 1969-70(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	142	100	681	246	211	197	133	159	112	79	100
2	513	120	98	413	232	200	197	139	442	120	79	126
3	240	109	92	336	232	197	190	174	232	103	342	98
4	142	103	95	336	226	190	978	145	174	95	258	254
5	117	112	156	303	204	185	1,310	139	149	112	740	130
6	106	117	209	260	200	193	670	174	139	153	201	930
7	103	103	142	265	221	197	385	142	133	112	152	1,310
8	106	100	123	242	218	185	312	136	126	98	136	325
9	109	100	882	344	211	179	307	237	126	92	152	294
10	109	92	410	311	193	175	254	189	123	88	156	167
11	103	90	224	295	200	175	224	152	149	85	123	155
12	100	92	177	300	207	235	212	307	120	90	112	135
13	98	92	163	265	239	319	209	352	114	83	153	232
14	95	92	173	246	242	253	201	205	120	79	109	171
15	85	92	152	239	225	232	201	171	159	77	98	133
16	85	92	156	232	221	225	185	152	139	74	92	120
17	83	88	165	221	246	215	182	149	139	70	92	114
18	83	88	146	211	292	193	178	201	120	72	90	112
19	83	90	145	207	265	185	171	167	112	74	112	98
20	85	88	533	204	261	193	163	159	109	77	142	95
21	83	92	2,320	1,820	235	403	159	146	106	70	105	92
22	83	112	848	958	311	315	159	142	112	66	92	92
23	85	98	359	508	389	245	174	167	106	66	88	90
24	85	95	254	344	300	225	159	152	103	77	88	85
25	83	92	242	498	265	207	152	133	100	83	83	88
26	83	92	529	753	232	193	149	123	106	83	85	88
27	83	103	1,040	769	221	190	146	139	157	754	100	85
28	88	139	509	477	214	193	142	130	159	157	81	88
29	240	126	340	380	------	183	142	120	159	114	88	92
30	153	103	295	303	------	242	136	142	130	100	117	81
31	142	------	323	269	------	232	------	142	------	88	88	------
TOTAL	3,789	3,054	11,462	13,011	6,750	6,764	8,244	5,160	4,332	3,554	4,454	5,907
MEAN	122	102	370	420	241	218	275	166	144	115	144	197
MAX	513	142	2,320	1,820	389	403	1,310	352	442	754	740	1,310
MIN	83	88	92	204	193	175	136	120	100	66	79	81
CFSM	.65	.54	1.97	2.23	1.28	1.16	1.46	.88	.77	.61	.77	1.05
IN	.75	.60	2.27	2.57	1.34	1.34	1.63	1.02	.86	.70	.88	1.17

CAL YR 1973 TOTAL 95,726 MEAN 262 MAX 3,900 MIN 83 CFSM 1.39 IN 18.94
WTR YR 1974 TOTAL 76,471 MEAN 210 MAX 2,320 MIN 66 CFSM 1.12 IN 15.13

PEAK DISCHARGE (BASE, 2,300 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0830	9.91	3,580	9- 6	2200	9.60	3,450
1-21	1230	10.32	3,790				

02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA.

LOCATION.--Lat 37°06'16", long 79°17'44", Pittsylvania County, on right bank 12 ft (4 m) upstream from bridge on U.S. Highway 29, 0.3 mi (0.5 km) south of Altavista, 0.3 mi (0.5 km) downstream from Sycamore Creek, 3.5 mi (5.6 km) upstream from Big Otter River, and at mile 286.5.

DRAINAGE AREA.--1,789 mi² (4,634 km²).

PERIOD OF RECORD.--August 1930 to current year.

GAGE.--Water-stage recorder. Datum of gage is 503.10 ft (153.345 m) above mean sea level. Prior to Feb. 21, 1951, on left bank 50 ft (20 m) downstream at same datum.

AVERAGE DISCHARGE.--44 years, 1,855 ft³/s or 52.53 m³/s (14.08 in/yr or 358 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 18,300 ft³/s (518 m³/s) Dec. 21 (gage height, 18.29 ft or 5.575 m); minimum, 152 ft³/s (4.30 m³/s) Dec. 3; minimum daily, 169 ft³/s (4.79 m³/s) Dec. 2; minimum gage height, 1.98 ft (0.604 m) Aug. 26.

Period of record: Maximum discharge, 105,000 ft³/s (2,970 m³/s) Aug. 15, 1940 (gage height, 40.08 ft or 12.216 m, from floodmark), from rating curve extended above 52,000 ft³/s (1,470 m³/s) on basis of unit hydrograph and flood-routing studies by Corps of Engineers and records for other stations in Roanoke River basin; minimum, 13 ft³/s (0.37 m³/s) Jan. 30, 1966; minimum daily, 39 ft³/s (1.10 m³/s) July 10, 1966; minimum gage height, 1.66 ft (0.506 m) Jan. 31, 1934, result of freezeup.

REMARKS.--Records good. Flow regulated since 1962 by Leesville Lake 9.5 mi (15.3 km) upstream (see sta 02059400) and since 1963 by Smith Mountain Lake 27.5 mi (44.2 km) upstream (see sta 02057400). Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 892: 1938(M). WSP 972: 1931-33. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,080	1,960	183	1,850	4,420	1,950	1,100	1,280	376	1,020	964	200
2	1,350	1,720	169	5,210	485	316	1,810	1,320	652	1,030	947	263
3	2,500	229	806	6,350	398	290	4,860	1,370	1,400	744	412	1,150
4	1,480	526	1,340	6,620	5,340	1,890	8,110	1,000	3,660	658	434	1,250
5	1,890	1,030	1,570	3,180	4,370	2,090	12,300	976	4,010	1,750	1,520	1,490
6	221	1,060	3,260	512	3,340	3,950	11,600	1,440	3,510	314	1,150	3,500
7	195	1,110	2,490	2,720	3,020	2,100	5,290	1,340	5,020	255	1,050	6,960
8	1,090	1,020	288	3,090	6,470	1,480	5,420	1,320	997	3,830	1,080	5,780
9	1,040	1,400	1,230	5,380	804	284	2,960	1,360	284	2,940	1,020	1,230
10	887	200	3,300	5,160	374	262	2,440	1,500	3,930	355	302	1,190
11	1,010	180	4,660	2,860	2,190	1,510	1,650	907	1,860	207	252	980
12	1,420	998	1,820	2,100	2,010	1,520	1,580	2,530	1,030	235	925	1,070
13	202	1,360	3,200	424	3,900	1,680	351	5,060	1,950	237	1,440	1,220
14	185	1,450	3,010	2,050	2,330	1,630	330	3,210	1,190	228	1,300	362
15	1,030	1,210	692	1,700	1,830	324	1,530	2,210	281	995	1,040	249
16	989	367	272	1,190	388	295	1,530	3,600	257	1,040	516	988
17	996	176	1,000	1,140	402	290	1,510	4,590	999	1,060	224	1,080
18	972	171	1,530	1,440	1,730	1,520	1,130	1,500	1,030	1,010	202	1,010
19	1,410	716	1,340	280	1,670	1,070	1,130	729	1,010	777	1,080	1,180
20	187	1,030	3,040	262	2,030	1,780	987	4,130	2,910	234	1,080	1,000
21	173	1,540	12,100	3,660	2,660	4,700	966	1,530	504	217	991	223
22	974	728	12,200	7,620	5,390	5,350	1,420	1,330	233	903	1,010	195
23	984	1,560	1,410	6,540	1,370	1,260	3,480	1,100	230	754	1,060	932
24	1,020	193	5,310	5,870	486	353	2,150	1,240	1,000	829	224	972
25	998	179	2,010	6,250	2,590	1,510	1,510	911	939	1,000	190	968
26	1,350	822	6,570	3,900	2,850	1,020	1,190	877	993	1,400	1,020	973
27	183	836	8,780	1,060	3,000	1,620	949	923	1,030	688	1,140	975
28	181	1,240	6,360	5,440	2,580	4,000	920	4,620	1,300	412	1,700	198
29	1,480	1,840	5,980	6,020	------	5,070	2,770	4,950	308	1,000	1,000	194
30	1,130	1,200	1,320	5,860	------	465	1,240	1,370	271	1,010	411	838
31	2,160	------	3,970	4,150	------	403	------	669	------	999	222	------
TOTAL	30,817	28,051	101,210	110,088	68,427	51,983	84,213	60,892	43,174	28,131	25,906	38,520
MEAN	994	935	3,265	3,551	2,444	1,677	2,807	1,964	1,439	907	836	1,284
MAX	2,500	1,960	12,200	7,620	6,470	5,350	12,300	5,060	5,020	3,830	1,700	6,960
MIN	173	171	169	262	374	262	330	669	230	207	190	194
(*)	+204	-201	+338	-58	-133	+244	+19	-263	-310	-87	+110	+291
MEAN‡	1,198	734	3,603	3,493	2,311	1,921	2,826	1,701	1,129	820	946	1,575
CFSM‡	.67	.41	2.01	1.95	1.29	1.07	1.58	.95	.63	.46	.53	.88
IN‡	.77	.46	2.32	2.25	1.35	1.24	1.76	1.10	.70	.53	.61	.98

CAL YR 1973 TOTAL 947,407 MEAN 2,596 MAX 14,400 MIN 162 MEAN‡ 2,584 CFSM‡ 1.44 IN‡ 19.61
WTR YR 1974 TOTAL 671,412 MEAN 1,839 MAX 12,300 MIN 169 MEAN‡ 1,854 CFSM‡ 1.04 IN‡ 14.08

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN SMITH MOUNTAIN AND LEESVILLE LAKES; FURNISHED BY APPALACHIAN POWER CO.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

02061500 BIG OTTER RIVER NEAR EVINGTON, VA.

LOCATION.--Lat 37°12'30", long 79°18'14", Campbell County, on right bank 10 ft (3 m) upstream from bridge on State Highway 682, 2.0 mi (3.2 km) southwest of Evington, and 2.1 mi (3.4 km) upstream from Flat Creek.

DRAINAGE AREA.--320 mi^2 (829 km^2).

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1965, published as Otter River near Evington.

GAGE.--Water-stage recorder. Datum of gage is 544.02 ft (165.817 m) above mean sea level.

AVERAGE DISCHARGE.--38 years, 331 ft^3/s or 9.374 m^3/s (14.05 in/yr or 357 mm/yr).

EXTREMES.--Current year: Maximum discharge, 6,490 ft^3/s (184 m^3/s) Sept. 7 (gage height, 16.22 ft or 4.944 m); minimum, 116 ft^3/s (3.29 m^3/s) July 23; minimum gage height, 1.54 ft (0.469 m) Oct. 1.

Period of record: Maximum discharge, 27,500 ft^3/s (779 m^3/s) Oct. 19, 1937, Aug. 19, 1939 (gage height, 23.1 ft or 7.04 m), from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum, 7.5 ft^3/s (0.21 m^3/s) Sept. 14, 1966; minimum gage height, 0.63 ft (0.192 m) Sept. 12-14, 1966.

REMARKS.--Records fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 852: 1937. WSP 892: 1938-39(M). WSP 972: 1937-29. WSP 1032: 1940. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	240	211	912	406	418	379	322	421	201	143	195
2	1,210	207	204	654	384	403	367	322	729	216	136	264
3	697	183	199	577	377	386	344	401	479	195	232	329
4	296	177	195	589	372	372	1,810	338	329	183	379	381
5	220	202	355	552	326	365	2,340	318	285	178	1,060	234
6	182	256	608	504	326	379	1,280	381	266	270	309	1,390
7	165	213	378	474	386	384	854	331	256	206	232	3,590
8	181	197	297	434	331	363	717	311	244	188	211	562
9	192	190	1,670	550	309	342	741	444	241	166	239	358
10	166	175	849	567	281	333	608	567	232	149	289	287
11	159	166	554	517	272	331	545	403	242	146	211	264
12	158	167	433	506	279	500	511	625	223	155	193	235
13	151	168	353	436	340	625	500	1,000	213	143	333	391
14	147	169	383	413	335	449	481	582	220	135	235	253
15	139	170	299	401	298	398	487	455	255	130	196	223
16	139	169	285	384	289	388	426	391	232	130	180	216
17	136	161	316	365	344	391	406	360	230	123	175	200
18	135	155	278	347	393	351	411	444	215	121	166	196
19	137	159	283	338	342	344	439	396	205	136	205	185
20	140	158	788	331	401	372	391	356	208	135	210	178
21	140	158	5,020	2,870	401	910	381	331	201	123	178	173
22	137	186	1,250	1,260	457	753	374	322	205	120	167	170
23	140	175	723	605	495	500	401	333	198	117	163	164
24	136	169	588	495	444	439	372	333	193	129	156	161
25	128	169	496	645	426	391	356	302	186	149	150	161
26	124	163	556	832	396	370	349	289	200	140	153	161
27	122	191	1,110	835	386	363	342	311	244	665	429	158
28	125	254	722	619	386	349	335	300	255	241	195	169
29	464	324	600	567	------	344	331	283	249	188	169	178
30	286	225	542	489	------	525	333	302	223	170	234	164
31	226	------	544	442	------	520	------	322	------	156	167	------
TOTAL	6,921	5,696	21,089	19,510	10,182	13,358	17,611	12,175	7,879	5,504	7,495	11,590
MEAN	223	190	680	629	364	431	587	393	263	178	242	386
MAX	1,210	324	5,020	2,870	495	910	2,340	1,000	729	665	1,060	3,590
MIN	122	155	195	331	272	331	331	283	186	117	136	158
CFSM	.70	.59	2.13	1.97	1.14	1.35	1.83	1.23	.82	.56	.76	1.21
IN	.80	.66	2.45	2.27	1.18	1.55	2.05	1.42	.92	.64	.87	1.35

CAL YR 1973 TOTAL 173,912 MEAN 476 MAX 5,020 MIN 122 CFSM 1.49 IN 20.22
WTR YR 1974 TOTAL 139,010 MEAN 381 MAX 5,020 MIN 117 CFSM 1.19 IN 16.16

PEAK DISCHARGE (BASE, 4,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1200	16.19	6,320	9- 7	0230	16.22	6,490
1-21	1800	14.92	5,310				

02062500 ROANOKE (STAUNTON) RIVER AT BROOKNEAL, VA.

LOCATION.--Lat 37°02'28", long 78°57'02", Campbell County, on left bank 1,600 ft (490 m) upstream from bridge on U.S. Highway 501 at Brookneal, 2.9 mi (4.7 km) upstream from Falling River, and at mile 255.9.

DRAINAGE AREA.--2,415 mi^2 (6,255 km^2).

PERIOD OF RECORD.--April 1923 to current year.

GAGE.--Water-stage recorder. Datum of gage is 351.96 ft (107.277 m) above mean sea level. Apr. 30, 1923, to Aug. 29, 1929, nonrecording gage, Aug. 30, 1929, to Aug. 15, 1940, water-stage recorder, and Aug. 16 to Oct. 1, 1940, nonrecording gage, at site 1,800 ft (550 m) downstream at same datum. Oct. 2, 1940, to Sept. 30, 1941, nonrecording gage at site 1,600 ft (490 m) downstream at same datum.

AVERAGE DISCHARGE.--51 years, 2,404 ft^3/s or 68.08 m^3/s (13.52 in/yr or 343 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 27,400 ft^3/s (776 m^3/s) Dec. 22 (gage height, 24.97 ft or 7.611 m); minimum daily, 387 ft^3/s (11.0 m^3/s) July 22.

Period of record: Maximum discharge, 130,000 ft^3/s (3,680 m^3/s) Aug. 15, 1940 (gage height, 46.5 ft or 14.17 m, at present site, from gage-height relation curve), from rating curve extended above 55,000 ft^3/s (1,560 m^3/s) on basis of slope-area measurement by Geological Survey, unit hydrograph and flood-routing studies by Corps of Engineers, and records for other stations in Roanoke River basin; minimum daily, 140 ft^3/s (3.96 m^3/s) July 25, 1966.

REMARKS.--Records good. Flow regulated since 1962 by Leesville Lake 40.1 mi (64.5 km) upstream (see sta 02059400) and since 1963 by Smith Mountain Lake 58.1 mi (93.5 km) upstream (see sta 02057400).

REVISIONS (WATER YEARS).--WSP 892: 1928(M). WSP 972: 1928-34. WSP 1303: 1924-27(M), 1929(M), 1941(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	409	3,730	1,610	10,000	6,060	3,920	1,310	2,140	1,860	609	1,470	491
2	1,900	3,440	512	3,960	5,060	2,170	2,810	2,200	1,710	1,680	1,420	585
3	4,200	2,020	483	8,350	1,330	911	3,090	2,470	3,420	1,690	1,400	1,280
4	4,050	563	1,540	8,750	2,050	1,440	10,900	2,330	2,860	1,250	1,160	2,470
5	2,520	982	2,520	8,550	8,330	3,070	18,000	1,790	5,050	1,200	2,590	2,320
6	2,460	1,780	4,220	2,470	5,070	3,590	15,700	2,250	5,410	2,540	3,010	3,760
7	500	1,880	3,470	2,260	4,810	5,530	11,600	2,420	4,920	791	1,940	17,000
8	510	1,740	3,200	4,880	7,060	2,600	3,720	2,260	6,320	737	1,730	11,600
9	1,900	1,900	3,460	5,590	6,640	2,050	8,520	2,390	751	5,090	1,770	2,220
10	1,750	1,920	5,440	7,410	1,320	788	3,670	3,060	1,110	3,590	1,810	2,260
11	1,650	501	5,550	7,360	1,430	1,150	3,680	2,520	5,930	491	784	2,190
12	1,810	474	5,680	4,220	3,800	2,660	2,880	1,920	1,750	429	582	1,750
13	2,150	2,050	3,090	3,110	3,800	3,220	2,280	8,320	1,970	445	1,610	1,710
14	473	1,960	4,920	1,410	6,690	2,990	1,180	5,250	2,930	433	2,510	2,330
15	430	2,260	3,860	3,940	2,950	2,220	1,610	5,000	1,500	412	2,000	771
16	1,650	1,640	900	2,440	2,910	950	2,660	2,950	724	1,430	1,590	546
17	1,640	516	953	2,250	1,460	953	2,590	5,030	731	1,500	864	1,530
18	1,630	456	2,570	2,330	2,180	1,340	2,250	6,110	1,680	1,490	486	1,740
19	1,620	448	2,440	2,340	3,270	2,180	2,060	1,970	1,650	1,420	461	1,620
20	2,030	1,380	2,900	920	3,210	2,660	2,190	2,230	1,770	1,130	1,720	1,810
21	438	1,630	17,200	2,560	4,270	4,430	1,850	5,070	4,100	420	1,690	1,550
22	400	2,400	19,400	11,800	4,840	9,000	1,960	2,160	609	387	1,550	516
23	1,540	1,410	6,940	9,710	7,050	6,740	2,960	2,100	560	1,280	1,520	474
24	1,600	1,890	2,170	7,660	1,600	1,340	5,710	1,970	631	1,090	1,570	1,430
25	1,600	494	7,800	8,820	2,040	1,480	2,470	2,120	1,520	1,240	449	1,460
26	1,700	477	3,850	7,580	4,480	2,280	2,220	1,450	1,550	1,520	405	1,480
27	1,840	1,540	10,900	6,730	4,660	2,350	2,140	1,580	1,610	2,850	1,840	1,480
28	421	1,440	8,450	3,840	4,640	3,010	1,770	2,230	2,000	1,950	2,060	1,490
29	1,020	2,430	8,100	8,390	------	7,060	2,060	6,610	1,870	748	2,480	471
30	2,720	2,730	6,700	8,060	------	4,840	3,710	5,390	714	1,630	1,460	460
31	2,240	------	1,850	7,650	------	1,780	------	1,670	------	1,530	828	------
TOTAL	50,811	48,081	152,678	175,340	113,010	90,702	129,550	96,960	69,210	42,992	46,759	70,994
MEAN	1,639	1,603	4,925	5,656	4,036	2,926	4,318	3,128	2,307	1,387	1,508	2,366
MAX	4,200	3,730	19,400	11,800	8,330	9,000	18,000	8,320	6,320	5,090	3,010	17,000
MIN	400	448	483	920	1,320	788	1,180	1,450	560	387	405	460
(*)	+204	-201	+338	-58	-133	+244	+19	-263	-310	-87	+110	+291
MEAN‡	1,843	1,402	5,263	5,598	3,903	3,170	4,337	2,865	1,997	1,300	1,618	2,657
CFSM‡	.76	.58	2.18	2.32	1.62	1.31	1.80	1.19	.83	.54	.67	1.10
IN‡	.88	.65	2.51	2.67	1.68	1.51	2.00	1.37	.92	.62	.77	1.23

CAL YR 1973 TOTAL 1,451,646 MEAN 3,977 MAX 24,000 MIN 400 MEAN‡ 3,965 CFSM‡ 1.64 IN‡ 22.29
WTR YR 1974 TOTAL 1,087,087 MEAN 2,978 MAX 19,400 MIN 387 MEAN‡ 2,993 CFSM‡ 1.24 IN‡ 16.83

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN SMITH MOUNTAIN AND LEESVILLE LAKES; FURNISHED BY APPALACHIAN POWER CO.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

02064000 FALLING RIVER NEAR NARUNA, VA.

LOCATION.--Lat 37°07'36", long 78°57'36", Campbell County, on left bank at upstream side of bridge on State Highway 643, 2.7 mi (4.3 km) northeast of Naruna, and 3.2 mi (5.1 km) upstream from Little Falling River.

DRAINAGE AREA.--173 mi² (448 km²).

PERIOD OF RECORD.--July 1929 to January 1935, September 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 412.32 ft (125.675 m) above mean sea level. Prior to Jan. 15, 1935, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--38 years (1929-34, 1941-74), 144 ft³/s or 4.078 m³/s (11.30 in/yr or 287 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,920 ft³/s (168 m³/s) Sept. 7 (gage height, 15.70 ft or 4.785 m); minimum, 45 ft³/s (1.27 m³/s) July 23 (gage height, 2.74 ft or 0.835 m).

Period of record: Maximum discharge, 32,600 ft³/s (923 m³/s) June 22, 1972 (gage height, 29.21 ft or 8.903 m), from rating curve extended above 6,100 ft³/s (173 m³/s) on basis of slope-area measurement of peak flow; minimum, 3.0 ft³/s (0.085 m³/s) Oct. 9, 1932 (gage height, 2.18 ft or 0.664 m).

Flood in August 1940 reached a stage of 26.5 ft (8.08 m), from floodmarks (discharge, 22,000 ft³/s or 623 m³/s, by slope-area measurement).

REMARKS.--Records good. Small diurnal fluctuation at times during low flow, cause unknown. Prior to 1958, diurnal fluctuation caused by gristmill at Spring Mills. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1333: 1930, 1931-34(M), 1935. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	127	78	1,010	181	156	198	123	198	81	56	84
2	223	102	75	344	174	151	194	123	315	80	94	97
3	209	91	75	247	180	148	181	204	270	75	98	283
4	111	85	75	273	184	145	1,160	156	167	71	290	569
5	90	100	213	253	159	141	1,080	138	136	91	400	139
6	79	115	238	213	167	146	475	191	118	87	114	1,110
7	75	92	133	193	390	147	291	150	118	106	87	3,220
8	121	88	113	174	278	140	263	129	113	80	80	436
9	110	88	935	324	231	135	456	222	113	71	127	239
10	90	81	333	302	203	133	275	208	102	66	225	170
11	84	79	194	251	198	133	227	164	97	64	95	145
12	82	78	151	219	207	201	209	203	92	62	78	125
13	79	79	143	183	272	243	205	330	92	57	87	111
14	77	79	225	170	269	181	197	176	92	55	77	100
15	73	79	167	166	221	158	185	148	101	52	67	98
16	72	78	160	161	210	164	173	142	97	57	63	98
17	68	74	181	153	278	174	175	121	100	50	63	92
18	68	73	158	144	276	150	158	121	88	50	61	97
19	69	75	159	142	242	146	152	126	84	50	61	86
20	70	75	268	139	238	175	148	123	83	50	62	82
21	72	76	2,450	428	195	784	147	110	84	47	65	80
22	72	85	641	338	288	470	146	112	90	47	103	79
23	73	79	301	224	268	260	171	123	82	46	84	76
24	74	77	242	192	206	215	149	116	78	54	81	73
25	70	77	202	239	190	185	141	105	74	61	80	75
26	69	76	197	367	171	172	146	97	90	81	67	73
27	69	77	253	452	163	166	132	151	99	349	74	71
28	69	90	197	291	160	159	134	125	119	94	72	71
29	247	109	171	279	------	158	126	110	106	68	66	77
30	141	83	173	223	------	309	124	123	90	99	73	69
31	105	------	435	198	------	273	------	126	------	66	93	------
TOTAL	2,987	2,567	9,336	8,292	6,199	6,319	7,818	4,596	3,488	2,367	3,143	8,125
MEAN	96.4	85.6	301	267	221	204	261	148	116	76.4	101	271
MAX	247	127	2,450	1,010	390	784	1,160	330	315	349	400	3,220
MIN	68	73	75	139	159	133	124	97	74	46	56	69
CFSM	.56	.49	1.74	1.54	1.28	1.18	1.51	.86	.67	.44	.58	1.57
IN	.64	.55	2.01	1.78	1.33	1.36	1.68	.99	.75	.51	.68	1.75

CAL YR 1973 TOTAL 82,755 MEAN 227 MAX 2,550 MIN 65 CFSM 1.31 IN 17.79
WTR YR 1974 TOTAL 65,237 MEAN 179 MAX 3,220 MIN 46 CFSM 1.03 IN 14.03

PEAK DISCHARGE (BASE, 2,300 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1400	11.98	3,600	9- 7	0130	15.70	5,920
4- 4	2000	10.17	2,770				

02065200 ROANOKE (STAUNTON) RIVER AT CLARKTON, VA.

LOCATION.--Lat 36°58'38", long 78°53'50", Halifax County, on right bank 100 ft (30 m) downstream from bridge on State Highway 620, 1,300 ft (400 m) upstream from Catawba Creek, 0.8 mi (1.3 km) southeast of Clarkton, 1.0 mi (1.6 km) downstream from Childrey Creek, and at mile 249.2.

DRAINAGE AREA.--2,691 mi^2 (6,970 km^2).

PERIOD OF RECORD.--June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 340.00 ft (103.632 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 2,331 ft^3/s or 66.01 m^3/s (11.76 in/yr or 299 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 27,800 ft^3/s (787 m^3/s) Sept. 7 (gage height, 25.26 ft or 7.699 m); minimum, 444 ft^3/s (12.6 m^3/s) July 23 (gage height, 4.32 ft or 1.317 m).

Period of record: Maximum discharge, 85,500 ft^3/s (2,420 m^3/s) June 22, 1972 (gage height, 35.56 ft or 10.839 m), from rating curve extended above 47,000 ft^3/s (1,330 m^3/s) on basis of records for other stations in Roanoke River basin; minimum, 172 ft^3/s (4.87 m^3/s) Sept. 23, 1968 (gage height, 3.15 ft or 0.960 m).

REMARKS.--Records good. Flow regulated by Leesville Lake 46.8 mi (75.3 km) upstream (see sta 02059400) and, beginning September 1963, by Smith Mountain Lake 64.8 mi (104.3 km) upstream (see sta 02057400). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495	3,170	1,610	9,110	5,250	3,420	1,710	1,960	1,960	776	1,470	597
2	1,600	2,790	697	3,580	4,760	2,490	2,460	2,020	1,730	1,620	1,530	776
3	3,600	1,990	647	7,620	1,610	1,260	2,910	2,270	3,210	1,640	1,520	1,350
4	3,520	751	1,380	8,000	1,920	1,250	9,380	2,380	2,550	1,300	1,350	2,950
5	2,170	1,080	2,200	7,790	7,260	2,770	18,400	1,780	4,490	1,190	3,000	2,320
6	2,150	1,660	3,000	3,090	4,320	3,090	15,600	1,980	4,690	2,520	3,150	3,520
7	682	1,690	3,600	1,920	4,620	4,850	11,200	2,350	4,090	1,020	1,970	23,100
8	697	1,670	3,220	4,240	6,060	2,700	3,220	2,120	6,090	776	1,740	12,100
9	1,730	1,570	3,210	4,740	6,540	2,330	8,470	2,330	1,050	4,430	1,770	2,860
10	1,610	1,910	5,030	6,980	1,690	1,130	3,810	2,730	871	3,160	2,020	2,340
11	1,400	697	4,730	6,910	1,560	1,100	3,760	2,630	5,370	693	1,070	2,110
12	1,510	646	5,750	4,020	3,490	2,490	2,930	1,860	1,770	559	793	1,800
13	1,870	1,710	2,600	3,110	3,390	2,980	2,770	5,280	1,640	561	1,550	1,780
14	641	1,780	4,190	1,520	5,730	2,880	1,550	3,030	2,800	546	2,310	2,130
15	579	1,990	3,790	3,310	2,950	2,580	1,500	4,540	1,580	514	1,920	998
16	1,430	1,570	1,280	2,580	2,960	1,330	2,590	2,670	894	1,370	1,590	835
17	1,410	752	1,270	2,210	1,800	1,370	2,510	4,410	826	1,450	1,010	1,590
18	1,410	617	2,430	2,100	2,040	1,290	2,460	3,610	1,600	1,440	653	1,690
19	1,390	605	2,300	2,340	3,140	2,410	2,090	1,960	1,590	1,390	593	1,590
20	1,820	1,250	2,160	1,170	3,100	2,190	2,140	1,700	1,530	1,160	1,600	1,710
21	586	1,520	14,800	2,170	3,660	4,440	1,880	4,680	3,620	541	1,650	1,530
22	547	2,110	22,900	10,700	4,170	8,780	1,850	2,100	839	465	1,580	690
23	1,390	1,180	9,240	8,730	6,990	6,560	2,490	2,050	696	1,220	1,560	610
24	1,420	2,020	2,620	6,850	1,950	1,820	5,200	1,860	658	1,120	1,550	1,370
25	1,450	681	7,320	7,690	1,750	1,560	2,210	1,970	1,490	1,250	697	1,450
26	1,420	635	3,420	6,970	3,980	2,540	2,340	1,470	1,490	1,530	541	1,440
27	1,740	1,380	10,200	6,450	3,980	2,110	2,060	1,610	1,550	3,350	1,620	1,450
28	558	1,420	7,840	3,480	3,940	2,700	1,760	1,680	1,760	2,140	2,050	1,450
29	899	1,940	7,390	7,530	-------	5,920	1,710	3,630	2,020	991	2,250	615
30	2,600	2,570	6,080	7,210	-------	5,160	3,500	3,140	895	1,650	1,500	574
31	1,900	-------	2,030	6,780	-------	2,290	-------	1,770	-------	1,540	1,040	-------
TOTAL	46,224	45,354	148,934	160,900	104,610	89,790	126,460	88,570	65,369	43,922	48,647	79,325
MEAN	1,491	1,512	4,804	5,190	3,736	2,896	4,215	2,857	2,179	1,417	1,569	2,644
MAX	3,600	3,170	22,900	10,700	7,260	8,780	18,400	5,280	6,090	4,430	3,150	23,100
MIN	495	605	647	1,170	1,560	1,100	1,500	1,470	658	465	541	574
(*)	+204	-201	+338	-58	-133	+244	+19	-263	-310	-87	+110	+291
MEAN‡	1,695	1,311	5,142	5,132	3,603	3,140	4,234	2,594	1,869	1,330	1,679	2,935
CFSM‡	.63	.49	1.91	1.91	1.34	1.17	1.57	.96	.69	.49	.62	1.09
IN‡	.73	.54	2.20	2.20	1.39	1.35	1.76	1.11	.78	.57	.72	1.22

CAL YR 1973 TOTAL 1,374,884 MEAN 3,767 MAX 27,700 MIN 495 MEAN‡ 3,755 CFSM‡ 1.40 IN‡ 18.95
WTR YR 1974 TOTAL 1,048,105 MEAN 2,872 MAX 23,100 MIN 465 MEAN‡ 2,887 CFSM‡ 1.07 IN‡ 14.56

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN SMITH MOUNTAIN AND LEESVILLE LAKES; FURNISHED BY APPALACHIAN POWER CO.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

02065500 CUB CREEK AT PHENIX, VA.

LOCATION.--Lat 37°04'45", long 78°45'50", Charlotte County, on right bank 10 ft (3 m) upstream from bridge on State Highway 40, 0.9 mi (1.4 km) west of Phenix, 1.9 mi (3.1 km) downstream from Rough Creek, and 6.4 mi (10.3 km) upstream from Louse Creek.

DRAINAGE AREA.--98.0 mi^2 (253.8 km^2).

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 370.19 ft (112.834 m) above mean sea level. Prior to July 14, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 92.6 ft^3/s or 2.622 m^3/s (12.83 in/yr or 326 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) Sept. 7 (gage height, 10.82 ft or 3.298 m); minimum daily, 41 ft^3/s (1.16 m^3/s) Oct. 1, July 21-23, Aug. 18, 19.

Period of record: Maximum discharge, 7,380 ft^3/s (209 m^3/s) June 22, 1972 (gage height, 20.37 ft or 6.209 m, from floodmark in gage house); minimum, 2.6 ft^3/s (0.074 m^3/s) Oct. 6, 1970 (gage height, 0.74 ft or 0.226 m).

Flood in August 1940 reached a stage of 17.5 ft (5.33 m), from floodmark.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1333: 1947(M), 1948, 1949(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	73	60	612	122	113	147	82	138	67	49	50
2	90	69	58	550	116	108	134	85	208	63	48	56
3	179	60	58	185	122	107	126	146	403	60	62	54
4	79	58	60	185	129	106	161	119	181	57	84	76
5	58	62	80	185	114	103	367	97	108	123	162	63
6	50	71	172	149	110	105	318	144	93	158	93	156
7	48	63	97	129	204	109	161	118	88	554	72	1,390
8	64	60	82	127	192	103	150	98	86	92	63	831
9	77	60	257	160	161	100	338	150	84	67	62	154
10	60	57	442	223	138	97	386	198	79	60	58	100
11	55	55	138	161	132	97	167	124	78	57	55	83
12	52	57	93	147	132	129	145	130	72	53	49	73
13	50	58	86	126	161	167	138	206	69	49	50	66
14	50	58	128	118	179	130	136	129	68	48	49	63
15	48	59	102	116	155	115	127	107	69	46	45	53
16	46	59	96	116	137	116	116	97	68	45	42	59
17	44	56	113	113	173	148	110	89	72	45	42	57
18	44	55	110	105	185	123	109	84	66	45	41	59
19	45	56	106	102	161	114	106	86	61	45	41	56
20	47	57	114	101	173	125	103	83	60	43	42	53
21	48	57	418	135	140	217	100	79	64	41	45	53
22	48	67	1,080	223	158	497	98	77	72	41	72	53
23	48	62	328	142	241	259	119	80	67	41	83	50
24	49	59	167	125	155	155	114	84	64	44	56	48
25	50	59	142	134	138	134	101	76	60	49	48	49
26	50	58	139	161	124	123	96	70	73	104	45	49
27	50	58	179	241	118	118	93	102	74	356	73	48
28	49	66	149	185	115	114	90	96	105	83	57	49
29	70	80	127	173	------	115	90	79	98	57	47	50
30	88	68	122	147	------	161	86	83	76	90	44	48
31	66	------	155	131	------	234	------	91	------	67	53	------
TOTAL	1,843	1,832	5,458	5,509	4,185	4,443	4,531	3,286	2,904	2,750	1,832	4,060
MEAN	59.5	61.1	176	178	149	143	151	106	96.8	88.7	59.1	135
MAX	179	80	1,080	612	241	497	386	206	403	554	162	1,390
MIN	41	55	58	101	110	97	86	70	60	41	41	48
CFSM	.61	.62	1.80	1.82	1.52	1.46	1.54	1.08	.99	.91	.60	1.38
IN	.70	.70	2.07	2.09	1.59	1.69	1.72	1.25	1.10	1.04	.70	1.54

CAL YR 1973 TOTAL 48,885 MEAN 134 MAX 1,520 MIN 34 CFSM 1.37 IN 18.56
WTR YR 1974 TOTAL 42,633 MEAN 117 MAX 1,390 MIN 41 CFSM 1.19 IN 16.18

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-22	0800	8.36	1,390	9- 7	1700	10.82	2,120
1- 1	2000	7.23	1,040				

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA.

LOCATION.--Lat 36°54'54", long 78°44'28", Halifax County, on right bank 14 ft (4 m) downstream from bridge on State Highway 746, 2.8 mi (4.5 km) northwest of Randolph, 3.6 mi (5.8 km) upstream from Roanoke Creek, and at mile 227.3.

DRAINAGE AREA.--2,977 mi² (7,710 km²).

PERIOD OF RECORD.--August 1900 to September 1906, October 1927 to September 1930, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1303. Prior to October 1902, published as Staunton River at Randolph. Gage heights collected since 1905 at this site or at former site are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 307.59 ft (93.753 m) above mean sea level. Aug. 27, 1900, to Oct. 13, 1902, nonrecording gage at site 3.2 mi (5.1 km) downstream at datum about 5.9 ft (1.80 m) lower. Oct. 14, 1902, to Aug. 11, 1906, and Oct. 1, 1927, to Mar. 31, 1930, nonrecording gage at site of original gage at datum 3.93 ft (1.198 m) lower than present datum.

AVERAGE DISCHARGE.--33 years, 3,100 ft³/s or 87.79 m³/s (14.14 in/yr or 359 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 27,300 ft³/s (773 m³/s) Sept. 8 (gage height, 24.46 ft or 7.455 m); minimum daily, 620 ft³/s (17.6 m³/s) July 22.

Period of record: Maximum discharge, 97,000 ft³/s (2,750 m³/s) Dec. 31, 1901 (gage height, 35.0 ft or 10.67 m, from graph based on gage readings, site and datum then in use); minimum daily, 179 ft³/s (5.07 m³/s) Sept. 8, 1965, July 7, 1970.

Flood of Aug. 16, 1940, reached a stage of 41.6 ft (12.68 m), present site and datum (discharge, 150,000 ft³/s or 4,250 m³/s), from information by Corps of Engineers.

REMARKS.--Records good. Flow regulated since 1962 by Leesville Lake 68.7 mi (110.5 km) upstream (see sta 02059400) and since 1963 by Smith Mountain Lake 86.7 mi (139.5 km) upstream (see sta 02057400). Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 1203: 1928-30. WSP 1303: 1901-6. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	623	3,030	2,190	8,540	5,930	3,900	2,350	2,460	2,170	929	1,600	1,060
2	1,320	2,990	1,040	6,000	5,840	3,220	2,560	2,290	2,030	1,500	1,520	973
3	3,460	2,690	727	8,050	2,130	1,530	3,340	2,520	3,750	1,710	1,790	1,110
4	4,440	1,110	893	8,540	1,920	1,320	6,410	2,840	3,700	1,310	1,640	3,130
5	2,450	979	2,030	8,810	6,750	2,850	14,400	2,200	4,740	1,320	3,090	2,900
6	2,650	1,660	3,110	4,790	5,370	3,240	16,700	2,330	5,060	3,160	4,450	4,420
7	1,050	1,840	4,940	2,280	5,560	4,970	13,100	2,930	4,630	1,740	2,480	20,000
8	728	1,830	3,590	4,380	6,030	3,520	5,950	2,560	5,910	1,440	2,020	22,800
9	1,620	1,650	3,120	4,950	8,010	2,570	9,120	2,790	2,290	3,980	1,960	9,380
10	1,790	2,040	6,530	7,920	2,730	1,380	6,340	3,490	1,070	3,730	2,260	3,220
11	1,530	1,030	5,940	7,670	1,840	1,160	4,930	3,420	4,740	1,460	1,600	2,550
12	1,630	715	6,220	5,110	3,540	2,460	3,750	2,430	2,720	708	1,040	2,210
13	1,990	1,070	3,130	3,930	3,760	3,140	3,500	5,160	1,830	660	1,280	2,130
14	1,020	1,920	4,750	1,920	5,870	3,390	2,080	7,080	2,710	672	2,460	2,420
15	683	2,060	4,500	3,230	4,150	2,960	1,870	5,020	2,090	648	2,230	1,490
16	1,240	1,870	2,130	3,180	3,380	1,590	3,050	3,680	1,140	1,090	1,800	1,030
17	1,510	1,420	1,480	2,410	2,160	1,620	3,030	4,650	974	1,540	1,250	1,530
18	1,490	715	2,060	2,290	2,280	1,490	2,960	5,690	1,550	1,550	1,040	1,950
19	1,470	684	2,570	2,530	3,640	2,520	2,490	2,900	1,720	1,490	766	1,840
20	1,910	782	2,560	1,430	3,660	2,220	2,410	1,820	1,700	1,260	1,280	1,970
21	955	1,550	9,630	1,420	3,810	3,910	2,230	4,920	3,410	950	1,780	1,760
22	641	2,140	22,600	8,980	4,600	9,670	2,190	2,800	1,650	620	1,720	1,220
23	1,180	1,640	18,600	9,770	7,670	8,110	2,950	2,300	830	868	1,770	762
24	1,510	2,240	5,050	7,940	3,220	3,150	5,190	2,110	775	1,250	1,690	1,100
25	1,540	1,050	7,230	7,660	2,000	1,880	3,420	2,210	1,320	1,250	1,180	1,730
26	1,520	721	3,710	7,920	4,030	2,780	2,780	1,760	1,620	1,500	699	1,590
27	1,850	883	8,960	7,260	4,300	2,290	2,350	1,790	1,670	5,650	1,210	1,600
28	930	1,560	9,590	4,290	4,380	2,870	2,080	1,990	1,890	3,680	2,330	1,500
29	731	1,960	8,070	7,640	------	5,350	1,990	5,410	2,290	1,620	2,390	1,030
30	2,610	2,750	7,090	7,870	------	6,470	3,850	5,720	1,230	1,490	1,770	705
31	2,220	------	2,740	7,410	------	3,160	------	2,620	------	1,790	1,280	------
TOTAL	50,311	48,579	166,770	176,120	118,580	100,690	139,370	101,890	73,209	52,575	55,375	101,110
MEAN	1,623	1,619	5,380	5,681	4,235	3,248	4,646	3,287	2,440	1,696	1,786	3,370
MAX	4,440	3,030	22,600	9,770	8,010	9,670	16,700	7,080	5,910	5,650	4,450	22,800
MIN	623	684	727	1,420	1,840	1,160	1,870	1,760	775	620	699	705
(*)	+204	-201	+338	-58	-133	+244	+19	-263	-310	-87	+110	+291
MEAN‡	1,827	1,418	5,718	5,623	4,102	3,492	4,665	3,024	2,130	1,609	1,896	3,661
CFSM‡	.61	.48	1.92	1.89	1.38	1.17	1.57	1.02	.72	.54	.64	1.23
IN‡	.71	.53	2.21	2.18	1.44	1.35	1.75	1.17	.80	.62	.73	1.37

CAL YR 1973 TOTAL 1,538,900 MEAN 4,216 MAX 26,200 MIN 623 MEAN‡ 4,204 CFSM‡ 1.41 IN‡ 19.18
WTR YR 1974 TOTAL 1,184,579 MEAN 3,245 MAX 22,800 MIN 620 MEAN‡ 3,260 CFSM‡ 1.10 IN‡ 14.87

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN SMITH MOUNTAIN AND LEESVILLE LAKES; FURNISHED BY APPALACHIAN POWER CO.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

02068500 DAN RIVER NEAR FRANCISCO, N. C.

LOCATION.--Lat 36°30'53", long 80°18'11", Stokes County, on left bank 200 ft (61 m) upstream from bridge on State Highway 704, 700 ft (213 m) downstream from Georges Mill, 0.2 mi (0.3 km) downstream from Elk Creek, 3 mi (5 km) east of Francisco, and 7.9 mi (12.7 km) downstream from Little Dan River.

DRAINAGE AREA.--124 mi^2 (321 km^2).

PERIOD OF RECORD.--August 1924 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Altitude of gage is 830 ft (253 m) from topographic map. Prior to Nov. 15, 1929, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--50 years, 188 ft^3/s or 5.324 m^3/s (20.59 in/yr or 523 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 7,730 ft^3/s (219 m^3/s) Apr. 4 (gage height, 9.48 ft or 2.890 m); minimum, 63 ft^3/s (1.78 m^3/s) Nov. 11, 12, 15; minimum gage height, 1.35 ft (0.411 m) Nov. 19; minimum daily, 81 ft^3/s (2.29 m^3/s) Nov. 11.

Period of record: Maximum discharge, 12,400 ft^3/s (351 m^3/s) Oct. 19, 1937 (gage height, 12.45 ft or 3.795 m); minimum, 7.1 ft^3/s (0.20 m^3/s) Sept. 8, 1932 (gage height, 0.43 ft or 0.131 m); minimum daily, 28 ft^3/s (0.79 m^3/s) Aug. 17, 18, 1963, Sept. 12, 1966.

Flood in 1916 reached a stage of about 15 ft (4.6 m), from information by local residents (discharge, 16,000 ft^3/s or 453 m^3/s).

REMARKS.--Records good. Considerable diurnal fluctuation and regulation from mills and powerplants above station. Talbott Reservoir (see sta 02067800) and Townes Reservoir (see sta 02067820) above Pinnacles hydroelectric plant in Virginia, 28 mi (45 km) above station, were completed in 1938. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 892: Drainage area. WSP 1303: 1938-50 (monthly runoff). WSP 1433: 1925-26, 1928-29, 1931, 1942, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	153	110	645	288	235	255	266	487	176	117	119
2	256	138	110	490	262	241	275	231	384	221	193	162
3	178	120	129	451	292	202	269	245	289	206	257	173
4	103	85	129	461	306	233	3,620	217	239	200	302	237
5	173	104	521	442	298	231	1,910	180	224	164	258	128
6	136	160	307	292	312	260	765	229	222	223	166	709
7	92	143	175	270	314	258	464	204	206	354	147	550
8	95	136	145	259	343	241	418	198	201	174	206	266
9	153	106	375	318	319	218	441	338	173	205	220	165
10	133	92	253	322	264	196	378	265	228	193	182	141
11	122	81	211	299	275	230	359	209	213	183	152	469
12	104	88	214	259	269	297	343	329	160	132	141	238
13	102	116	211	247	234	297	339	388	164	120	170	225
14	95	102	206	266	195	266	308	309	163	118	201	197
15	93	101	175	241	204	249	277	308	170	115	197	125
16	104	118	200	183	278	238	293	294	198	159	200	136
17	104	108	223	175	279	225	304	276	165	125	163	170
18	106	116	220	229	252	228	298	263	169	116	163	168
19	108	95	206	235	267	238	289	220	175	151	125	155
20	108	106	406	181	234	248	273	160	231	114	136	154
21	95	129	880	1,070	222	507	234	174	214	113	159	146
22	95	133	415	451	284	319	240	185	178	113	150	110
23	97	99	334	401	282	230	314	252	151	113	127	112
24	99	101	270	375	216	214	273	269	143	123	132	140
25	106	99	247	384	236	225	267	261	155	122	116	101
26	104	93	916	397	287	257	258	192	181	118	129	143
27	102	124	880	442	278	198	240	288	200	216	213	106
28	101	148	531	388	262	178	210	294	197	154	182	118
29	148	138	451	338	------	210	227	306	195	128	195	113
30	131	129	433	295	------	445	253	285	171	177	208	102
31	122	------	552	299	------	279	------	261	------	144	121	------
TOTAL	3,785	3,461	10,435	11,105	7,552	7,901	14,394	7,896	6,246	4,970	5,428	5,878
MEAN	122	115	337	358	270	255	480	255	208	160	175	196
MAX	256	160	916	1,070	343	507	3,620	388	487	354	30.	709
MIN	92	81	110	175	195	178	210	160	143	113	116	101
(*)	-3	-1	+18	-13	+3	-12	+5	-3	+8	-10	-9	+21

CAL YR 1973 TOTAL 98,507 MEAN 270 MAX 2,200 MIN 81 MEAN† 271 CFSM† 2.19 IN† 29.67
WTR YR 1974 TOTAL 89,051 MEAN 244 MAX 3,620 MIN 81 MEAN† 244 CFSM† 1.97 IN† 26.71

PEAK DISCHARGE (BASE, 2,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	1930	4.72	2,180	6- 1	0100	4.62	2,090
1-21	1030	4.55	2,020	9- 6	2100	4.66	2,120
4- 4	1530	9.48	7,730				

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN TALBOTT AND TOWNES RESERVOIRS FURNISHED BY CITY OF DANVILLE, VA.

† ADJUSTED FOR CHANGE IN CONTENTS.

02069700 SOUTH MAYO RIVER NEAR NETTLERIDGE, VA.

LOCATION.--Lat 36°34'15", long 80°07'47", Patrick County, on right bank at downstream side of bridge on State Highway 700, 1.2 mi (1.9 km) southeast of Nettleridge, 1.4 mi (2.3 km) downstream from Russell Creek, and 3.6 mi (5.8 km) upstream from Spoon Creek.

DRAINAGE AREA.--84.6 mi^2 (219.1 km^2).

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 871.60 ft (265.664 m) above mean sea level. Prior to Oct. 9, 1964, nonrecording gage and crest-stage gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 124 ft^3/s or 3.512 m^3/s (19.90 in/yr or 505 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,350 ft^3/s (123 m^3/s) Apr. 4 (gage height, 12.16 ft or 3.706 m), from rating curve extended as explained below; minimum, 57 ft^3/s (1.61 m^3/s) Nov. 17, 18 (gage height, 3.38 ft or 1.030 m).

Period of record: Maximum discharge, 12,500 ft^3/s or 354 m^3/s (revised) June 21, 1972 (gage height, 18.32 ft or 5.584 m), from rating curve extended above 2,900 ft^3/s (82.1 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 21 ft^3/s (0.59 m^3/s) Aug. 27, 1963; minimum gage height, 2.75 ft (0.838 m) July 28, 1966.

REVISIONS.--The maximum discharge for the water year 1972 has been revised to 12,500 ft^3/s (354 m^3/s) June 21, 1972 (gage height, 18.32 ft or 5.584 m), superseding figure published in WRD Va. 1972.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1976: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, [illegible])

NOTE.--[illegible]

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
[illegible]	UNKNOWN	-	UNKNOWN	4- 4	[illegible]	12.16	4,350
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

02070000 NORTH MAYO RIVER NEAR SPENCER, VA.

LOCATION.--Lat 36°34'05", long 79°59'15", Henry County, on left bank 800 ft (244 m) downstream from bridge on State Highway 629 at Moores Mill, 2.1 mi (3.4 km) downstream from Horse Pasture Creek, and 3.8 mi (6.1 km) southeast of Spencer.

DRAINAGE AREA.--108 mi² (280 km²).

PERIOD OF RECORD.--October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 730.94 ft (222.791 m) above mean sea level (levels by Corps of Engineers). Prior to Jan. 23, 1936, nonrecording gage at site 800 ft (244 m) upstream at datum 1.50 ft (0.457 m) higher. July 25 to Sept. 27, 1936, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--46 years, 125 ft³/s or 3.540 m³/s (15.72 in/yr or 399 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,420 ft³/s (96.9 m³/s) Apr. 5 (gage height, 7.35 ft or 2.240 m); minimum, 67 ft³/s (1.90 m³/s) Oct. 18, Aug. 2; minimum gage height, 1.60 ft (0.488 m) Aug. 2.

Period of record: Maximum discharge, 17,200 ft³/s (487 m³/s) Oct. 9, 1947 (gage height, 15.80 ft or 4.816 m), from rating curve extended above 7,200 ft³/s (204 m³/s) on basis of slope-area measurement at gage height 13.41 ft (4.087 m) and velocity-area study; minimum, 14 ft³/s (0.40 m³/s) Aug. 11, 1956 (gage height, 1.10 ft or 0.335 m).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1303: 1929-32(M), 1934(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	96	84	432	193	126	159	126	262	99	71	93
2	170	92	82	293	148	126	156	128	177	92	69	126
3	115	88	80	191	156	126	146	161	156	90	91	126
4	88	86	82	191	159	122	1,719	133	136	90	101	148
5	79	88	247	189	138	118	1,880	130	128	99	298	139
6	75	80	237	166	163	120	531	156	126	129	187	607
7	71	86	176	161	196	120	303	133	120	335	120	1,162
8	70	84	119	145	222	118	292	126	126	180	120	261
9	66	82	457	166	191	115	258	150	122	111	177	183
10	67	80	256	179	168	113	237	148	118	101	356	152
11	78	80	166	161	156	115	196	130	118	96	166	186
12	75	80	133	153	145	120	183	319	109	90	177	151
13	75	87	178	138	138	142	155	327	155	86	113	133
14	73	81	160	133	134	122	185	177	129	87	101	123
15	71	80	126	120	133	115	166	150	139	80	96	113
16	69	87	132	126	156	118	156	138	137	78	90	120
17	69	92	140	122	166	118	152	130	126	76	96	137
18	67	85	124	118	180	111	146	138	111	76	171	119
19	65	82	118	118	169	111	166	299	173	76	97	133
20	69	79	502	119	177	127	167	902	109	78	86	96
21	71	83	1,600	1,370	160	665	159	191	109	73	88	96
22	69	96	355	487	237	269	136	158	179	71	82	92
23	69	96	217	296	180	172	179	209	131	71	80	90
24	69	87	180	203	150	168	160	180	96	80	162	96
25	71	90	158	196	160	155	156	160	97	82	96	96
26	71	78	276	253	156	120	153	133	[illegible]	80	86	86
27	71	87	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	-------	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	-------	[illegible]	[illegible]	-------	[illegible]	-------	[illegible]	-------	[illegible]	[illegible]	-------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	1,600	1,370	[illegible]	665	1,880	902	262	335	356	1,162
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CFSM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1973 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]
WTR YR 1974 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] CFSM [illegible] IN [illegible]

PEAK DISCHARGE (BASE, [illegible] FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

02072000 SMITH RIVER NEAR PHILPOTT, VA.

LOCATION.--Lat 36°46'50", long 80°01'30", Franklin County, on left bank 900 ft (270 m) downstream from Philpott Dam, 3.1 mi (5.0 km) west of Philpott, 11.6 mi (18.7 km) upstream from Reed Creek, and at mile 44.1.

DRAINAGE AREA.--216 mi² (559 km²).

PERIOD OF RECORD.--August 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 804.27 ft (245.141 m) above mean sea level (Corps of Engineers bench mark). Prior to Oct. 8, 1952, at site 1.9 mi (3.1 km) downstream at different datum.

AVERAGE DISCHARGE.--28 years, 279 ft³/s or 7.901 m³/s (17.54 in/yr or 446 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,420 ft³/s (40.2 m³/s) May 14, 17 (gage height, 5.08 ft or 1.548 m); minimum, 8.6 ft³/s (0.24 m³/s) Nov. 26-29 (gage height, 1.82 ft or 0.555 m); minimum daily, 34 ft³/s (0.96 m³/s) Aug. 24, 25, Sept. 7, 8.

Period of record: Maximum discharge, 17,000 ft³/s (481 m³/s) June 29, 1949 (gage height, 20.3 ft or 6.19 m, site and datum then in use), from rating curve extended above 9,700 ft³/s (275 m³/s) on basis of slope-area measurements at gage heights 18.2 ft (5.55 m) and 20.3 ft (6.19 m); minimum, 4.0 ft³/s (0.11 m³/s) Aug. 12, 1953 (gage height, 1.50 ft or 0.457 m); minimum daily, 24 ft³/s (0.68 m³/s) Dec. 16, 17, 1967.

REMARKS.--Records good. Since August 1950, flow regulated by Philpott Lake 0.2 mi (0.3 km) upstream (see sta 02071900).

REVISIONS (WATER YEARS).--WSP 1553: 1953(M), 1955-56(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	203	45	44	662	505	303	294	47	306	678	35
2	199	202	45	669	45	45	301	292	47	305	680	250
3	198	45	201	657	45	45	666	295	249	305	47	250
4	199	45	200	663	670	409	669	47	662	305	46	250
5	199	197	200	674	676	403	694	47	661	308	307	248
6	[illegible]	201	200	44	669	405	763	196	664	47	307	251
7	[illegible]	202	200	774	666	402	45	199	671	47	306	34
8	[illegible]	200	45	776	676	398	769	197	137	207	308	34
9	[illegible]	202	45	771	46	45	761	196	44	302	308	247
10	[illegible]	45	200	765	[illegible]	45	760	197	245	305	46	517
11	[illegible]	45	200	769	517	194	769	47	252	303	46	517
12	467	201	200	773	516	196	766	47	250	303	308	515
13	[illegible]	199	200	44	512	199	46	298	250	47	309	516
14	46	200	200	671	510	193	46	832	251	47	309	45
15	[illegible]	201	45	[illegible]	511	201	770	831	47	308	309	45
16	[illegible]	202	45	[illegible]	[illegible]	45	750	831	47	303	306	[illegible]
17	[illegible]	45	[illegible]	[illegible]	45	[illegible]	[illegible]	830	[illegible]	302	35	[illegible]
18	[illegible]	45	[illegible]	678	[illegible]	200	770	46	[illegible]	301	35	[illegible]
19	[illegible]	202	[illegible]	44	197	200	771	47	252	305	302	[illegible]
20	[illegible]	202	[illegible]	44	200	[illegible]	46	[illegible]	[illegible]	47	301	[illegible]
21	[illegible]	202	[illegible]	[illegible]	200	202	[illegible]	[illegible]	253	47	302	45
22	[illegible]	[illegible]	[illegible]	[illegible]	199	199	[illegible]	[illegible]	47	306	302	45
23	[illegible]	199	44	[illegible]	45	45	[illegible]	[illegible]	47	[illegible]	300	[illegible]
24	[illegible]	45	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	253	[illegible]	34	253
25	[illegible]	45	44	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	252	[illegible]	34	252
26	[illegible]	187	[illegible]	44	[illegible]	[illegible]	[illegible]	44	250	302	303	253
27	45	176	[illegible]	44	[illegible]	[illegible]	46	[illegible]	253	45	304	253
28	45	176	[illegible]	[illegible]	513	[illegible]	46	[illegible]	256	45	300	45
29	[illegible]	[illegible]	44	[illegible]	------	[illegible]	[illegible]	[illegible]	47	[illegible]	301	44
30	[illegible]	[illegible]	[illegible]	[illegible]	------	46	[illegible]	[illegible]	46	[illegible]	300	[illegible]
31	[illegible]	------	[illegible]	[illegible]	------	47	------	[illegible]	------	[illegible]	[illegible]	------
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]
[illegible]

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN PHILPOTT LAKE; FURNISHED BY CORPS OF ENGINEERS.
‡ ADJUSTED FOR CHANGE IN CONTENTS.

02072500 SMITH RIVER AT BASSETT, VA.

LOCATION.--Lat 36°46'12", long 80°00'04", Henry County, on left bank 25 ft (8 m) upstream from bridge on State Highway 666 at north edge of North Bassett 1.0 mi (1.6 km) northwest of Bassett, 3.0 mi (4.8 km) downstream from Town Creek, 5.6 mi (9.0 km) upstream from Reed Creek, 6.2 mi (10.0 km) downstream from Philpott Dam, and at mile 38.1.

DRAINAGE AREA.--259 mi² (671 km²).

PERIOD OF RECORD.--April 1939 to current year

GAGE.--Water-stage recorder. Datum of gage is 753.09 ft (229.542 m) above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--35 years, 330 ft³/s or 9.346 m³/s (17.30 in/yr or 439 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, [illegible],940 ft³/s (225 m³/s) July 26 (gage height, 9.60 ft or 2.926 m); minimum, 51 ft³/s (1.44 m³/s) July 23 (gage height, 1.47 ft or 0.448 m); minimum daily, 61 ft³/s (1.73 m³/s) Aug. 25, Sept. 1.

Period of record: Maximum discharge, 26,600 ft³/s (753 m³/s) Aug. 14, 1940 (gage height, 18.28 ft or 5.572 m); minimum, 19 ft³/s (0.54 m³/s) July 19, 1956; minimum daily, 44 ft³/s (1.25 m³/s) Aug. 23, 1964; minimum gage height, 1.06 ft (0.323 m) Sept. 18, 26, 1953.

Flood of Oct. 19, 1937, reached a stage of about 22.9 ft (6.98 m), from information by local residents (discharge, 38,200 ft³/s or 1,080 m³/s, from rating curve extended above 23,000 ft³/s or 651 m³/s on basis of backwater studies and records for station at Martinsville).

REMARKS.--Records good. Since August 1950, flow regulated by Philpott Lake 6.2 mi (10.0 km) upstream (see sta 02071900). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	256	245	73	183	715	554	356	335	120	340	701	61
2	264	237	70	746	95	93	354	342	207	338	707	282
3	250	79	232	730	99	85	707	358	320	336	95	285
4	240	73	230	735	724	442	1,370	93	710	337	152	291
5	237	233	329	740	725	448	1,010	87	713	347	376	277
6	82	237	266	106	721	450	903	238	714	79	352	452
7	76	237	242	826	717	447	140	238	720	81	345	192
8	505	236	82	831	734	445	840	235	157	339	371	89
9	513	234	266	851	96	89	836	252	82	335	370	209
10	512	76	276	842	92	80	830	248	283	336	133	583
11	510	72	251	841	566	240	828	95	301	334	91	835
12	509	228	246	836	564	248	822	271	290	335	347	576
13	90	233	240	99	562	250	110	401	287	69	345	551
14	76	233	248	718	558	239	97	883	310	68	344	94
15	229	234	80	717	557	238	812	874	83	354	342	82
16	231	234	82	710	97	83	803	869	84	377	341	627
17	232	76	503	720	98	81	823	877	290	335	68	552
18	232	76	500	726	267	236	816	96	285	336	65	657
19	233	227	503	90	262	237	817	162	287	336	335	653
20	77	232	613	76	263	239	90	581	291	71	338	554
21	76	237	586	471	253	366	87	550	271	68	335	102
22	226	238	776	532	302	240	492	556	77	335	335	73
23	233	231	112	474	123	100	513	583	75	327	331	282
24	235	76	737	666	104	96	497	565	284	337	66	260
25	234	72	88	478	557	369	495	116	288	336	61	277
26	236	413	1,020	120	565	366	499	85	201	1,420	336	260
27	73	411	861	625	561	366	81	607	290	111	332	277
28	76	410	750	732	559	366	82	613	286	87	327	73
29	276	417	588	730	------	262	332	808	67	704	331	71
30	242	225	591	731	------	132	366	610	76	699	333	227
31	241	------	761	730	------	113	------	607	------	706	63	------
TOTAL	7,603	[illegible]	11,690	19,600	11,534	9,025	16,900	13,030	8,619	10,613	9,067	10,229
MEAN	245	188	377	600	412	290	560	421	287	342	292	341
MAX	513	245	1,020	846	734	556	1,370	883	720	1,420	707	835
MIN	73	72	70	76	92	80	82	85	75	68	61	61
(†)	-43	+7	+183	-43	-17	+56	-26	-17	+41	-62	-71	+24
MEAN‡	202	195	560	557	395	305	536	404	328	280	221	365
CFSM‡	.78	.75	2.16	2.15	1.53	1.18	2.07	1.56	1.27	1.08	.85	1.41
IN‡	.90	.84	2.49	2.48	1.59	1.36	2.31	1.80	1.41	1.25	.98	1.57

CAL YR 1973 TOTAL 170,[illegible] MEAN 476 MAX 1,[illegible] MIN 70 MEAN‡ 477 CFSM‡ 1.84 IN‡ 25.00
WTR YR 1974 TOTAL 131,[illegible] MEAN 360 MAX 1,420 MIN 61 MEAN‡ 350 CFSM‡ 1.35 IN‡ 18.[illegible]

† CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN PHILPOTT LAKE; FURNISHED BY CORPS OF ENGINEERS.
‡ ADJUSTED FOR CHANGE IN CONTENTS.

02073000 SMITH RIVER AT MARTINSVILLE, VA.

LOCATION.--Lat 36°39'40", long 79°52'51", Henry County, on right bank at south edge of Martinsville, 800 ft (244 m) downstream from bridge on U.S. Highways 58 and 220, and 5.0 mi (8.0 km) downstream from Beaver Creek.

DRAINAGE AREA.--380 mi² (984 km²).

PERIOD OF RECORD.--August 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 657.22 ft (200.321 m) above mean sea level.

AVERAGE DISCHARGE.--45 years, 452 ft³/s or 12.80 m³/s (16.15 in/yr or 410 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 7,300 ft³/s (207 m³/s) Apr. 4 (gage height, 7.94 ft or 2.420 m); minimum, 13 ft³/s (0.37 m³/s) Nov. 29 (gage height, 0.91 ft or 0.277 m); minimum daily, 124 ft³/s (3.51 m³/s) Aug. 25.

Period of record: Maximum discharge, 39,000 ft³/s (1,100 m³/s) Oct. 19, 1937 (gage height, 21.50 ft or 6.553 m), from rating curve extended above 17,000 ft³/s (481 m³/s) on basis of computations of flow over dam at gage heights 16.76 ft (5.108 m) and 21.50 ft (6.553 m); minimum, 3.8 ft³/s (0.11 m³/s) Mar. 19, 1955; minimum daily, 19 ft³/s (0.54 m³/s) Oct. 6, 1935; minimum gage height, 0.69 ft (0.210 m) Sept. 8, 1969.

REMARKS.--Records good. Flow regulated since August 1950 by Philpott Lake 19.6 mi (31.5 km) upstream (see sta 02071900). Some additional regulation by powerplant 1,000 ft (305 m) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1032: 1933-35(M), 1936-39, 1940-41(P). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	333	372	208	836	854	694	508	536	614	295	790	169
2	718	359	175	800	466	424	529	494	373	373	820	295
3	538	309	229	930	285	250	614	536	327	419	327	465
4	379	143	327	940	694	431	3,470	339	652	412	327	419
5	346	287	646	920	854	558	2,130	236	830	433	548	355
6	309	333	546	522	872	582	1,250	312	830	473	454	1,250
7	156	353	346	782	910	574	646	362	840	624	434	970
8	379	327	327	970	960	566	809	368	550	311	425	280
9	619	327	1,110	1,070	508	356	1,050	392	191	473	424	355
10	628	265	508	1,020	270	214	1,000	431	300	441	388	586
11	578	140	420	1,030	522	404	990	339	349	419	186	1,310
12	602	243	379	1,000	800	398	970	529	367	433	352	750
13	420	336	399	558	710	404	590	590	355	265	413	700
14	166	327	399	574	702	392	275	970	550	174	409	419
15	216	320	304	854	702	380	746	990	344	305	407	174
16	372	333	252	836	459	196	950	1,000	199	473	409	473
17	327	256	463	845	306	232	910	1,000	316	406	186	790
18	320	143	646	845	515	386	950	590	360	412	137	790
19	333	243	637	815	445	417	940	362	373	406	310	780
20	287	320	1,260	285	466	392	536	920	360	265	394	780
21	170	340	2,560	2,410	431	845	241	750	386	158	364	465
22	252	359	1,180	1,010	550	606	410	652	255	280	379	151
23	333	333	515	746	362	320	606	836	195	425	372	305
24	327	256	737	678	320	270	630	730	265	412	224	369
25	340	180	943	694	501	480	630	523	360	412	124	333
26	333	315	1,050	650	694	480	630	162	373	1,320	296	344
27	256	306	1,280	404	702	487	438	541	373	327	362	344
28	196	333	976	764	702	487	250	750	406	162	331	208
29	530	276	543	960	------	543	362	740	305	814	393	168
30	392	370	895	890	------	536	473	750	107	810	406	255
31	356	------	980	872	------	392	------	740	------	810	222	------
TOTAL	11,521	8,809	20,156	26,010	16,578	13,706	24,620	18,476	12,105	13,562	11,613	15,012
MEAN	372	294	650	839	592	442	821	596	404	437	375	500
MAX	718	372	2,560	2,410	960	845	3,470	1,000	840	1,320	820	1,310
MIN	156	140	175	285	270	196	241	162	107	158	124	151
(†)	-60	+7	+183	-69	-17	+44	-24	-17	+43	-62	-71	+24
MEAN‡	312	301	833	770	575	486	797	579	447	375	304	524
CFSM‡	.82	.79	2.19	2.03	1.51	1.28	2.10	1.52	1.18	.99	.80	1.38
IN‡	.95	.88	2.53	2.34	1.58	1.48	2.35	1.76	1.31	1.14	.92	1.54

CAL YR 1973 TOTAL 246,303 MEAN 675 MAX 3,720 MIN 130 MEAN‡ 670 CFSM‡ 1.76 IN‡ 24.22
WTR YR 1974 TOTAL 192,291 MEAN 527 MAX 3,470 MIN 124 MEAN‡ 527 CFSM‡ 1.39 IN‡ 18.86

† CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN PHILPOTT LAKE; FURNISHED BY CORPS OF ENGINEERS.
‡ ADJUSTED FOR CHANGE IN CONTENTS.

02074000 SMITH RIVER AT EDEN, N. C.

LOCATION.--Lat 36°31'31", long 79°45'57", Rockingham County, on right bank at Eden, 0.3 mi (0.5 km) downstream from bridge on State Highway 14, 0.8 mi (1.3 km) upstream from bridge on Secondary Road 1714, 1.2 mi (1.9 km) south of Virginia-North Carolina State line, 1.3 mi (2.1 km) downstream from Stuart Creek, and 3.9 mi (6.3 km) upstream from mouth.

DRAINAGE AREA.--538 mi² (1,393 km²).

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1970 published as "at Spray".

GAGE.--Water-stage recorder. Datum of gage is 539.56 ft (164.458 m) above mean sea level.

AVERAGE DISCHARGE.--35 years, 609 ft³/s or 17.25 m³/s (15.37 in/yr or 390 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 11,700 ft³/s (331 m³/s) Apr. 4 (gage height, 10.83 ft or 3.301 m); minimum, 130 ft³/s (3.68 m³/s) Oct. 22 (gage height, 1.66 ft or 0.506 m); minimum daily, 204 ft³/s (5.78 m³/s) Dec. 3.

Period of record: Maximum discharge, 45,600 ft³/s (1,290 m³/s) Aug. 15, 1940 (gage height, 19.28 ft or 5.877 m), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of computation of peak flow over dam 1.5 mi (2.4 km) downstream; minimum, 38 ft³/s (1.08 m³/s) Aug. 7, 1967; minimum daily, 46 ft³/s (1.30 m³/s) Aug. 14, 1967.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated since August 1950 by Philpott Lake 40 mi (64 km) upstream (see sta 02071900). Some additional regulation by hydroelectric plant at Martinsville, Va., 18 mi (29 km) upstream. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1433: 1946. WRD N. C. 1968: 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	468	420	2,070	1,090	880	579	617	1,190	290	813	213
2	870	436	277	891	975	700	724	642	557	502	812	412
3	817	421	204	1,200	444	400	646	727	557	489	721	628
4	521	236	386	1,230	558	600	4,530	646	683	520	644	574
5	456	306	561	1,160	1,050	700	4,720	393	1,010	518	802	488
6	425	404	885	1,120	1,090	700	2,050	511	1,010	629	658	1,860
7	260	410	537	600	1,360	700	1,440	556	1,010	1,010	626	3,000
8	280	397	444	1,120	1,440	700	897	534	995	448	557	698
9	689	386	1,940	1,250	1,160	600	1,520	631	471	629	613	603
10	677	370	1,020	1,280	504	400	1,320	615	334	574	604	629
11	670	254	660	1,220	600	450	1,260	617	599	563	297	1,440
12	659	237	588	1,200	940	600	1,210	455	574	573	309	934
13	666	368	552	1,030	900	591	1,180	1,020	544	543	516	806
14	245	387	600	444	900	523	515	863	642	248	494	690
15	235	385	492	968	900	509	539	1,180	792	244	482	281
16	395	390	414	968	880	472	1,120	1,160	441	580	481	345
17	373	348	504	947	450	370	1,140	1,140	385	539	437	824
18	366	253	765	940	700	389	1,140	1,100	566	500	274	852
19	370	228	765	905	650	482	1,110	485	553	499	301	828
20	361	360	1,230	355	600	528	1,030	1,230	546	506	493	817
21	238	382	5,560	3,910	600	1,450	389	1,020	564	242	485	745
22	227	456	1,710	1,830	700	1,190	406	885	565	206	475	249
23	374	416	1,280	1,140	600	691	923	996	321	461	465	297
24	372	412	742	975	420	485	831	1,010	275	479	429	430
25	372	259	1,090	961	600	499	792	889	523	496	214	445
26	368	226	702	919	900	643	789	380	523	1,190	262	436
27	387	383	1,620	723	900	622	780	709	517	772	469	420
28	233	450	1,220	742	880	615	375	1,040	567	280	461	413
29	684	442	1,060	552	------	651	369	950	565	274	451	267
30	557	417	692	1,240	------	1,040	623	664	368	816	470	285
31	661	------	812	1,120	------	806	------	966	------	700	411	------
TOTAL	13,923	10,887	29,732	35,010	22,791	19,986	34,947	24,591	18,227	16,419	15,534	20,895
MEAN	449	363	959	1,129	814	645	1,165	793	608	530	501	697
MAX	870	468	5,560	3,910	1,440	1,450	4,720	1,230	1,190	1,190	813	3,000
MIN	227	226	204	355	420	370	369	380	275	206	214	213
(+)	-60	+7	+103	-69	-17	+46	-24	-17	+61	-62	-71	+26

CAL YR 1973 TOTAL 323,670 MEAN 887 MAX 6,520 MIN 204 MEAN‡ 890 CFSM‡ 1.65 IN‡ 22.46
WTR YR 1974 TOTAL 262,962 MEAN 720 MAX 5,560 MIN 204 MEAN‡ 720 CFSM‡ 1.34 IN‡ 18.17

+ CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN PHILPOTT LAKE, FURNISHED BY CORPS OF ENGINEERS.
‡ ADJUSTED FOR CHANGE IN CONTENTS.
NOTE.--NO GAGE-HEIGHT RECORD FEB. 11 TO MAR. 12.

02074500 SANDY RIVER NEAR DANVILLE, VA.

LOCATION.--Lat 36°37'10", long 79°30'16", Pittsylvania County, on right bank 200 ft (61 m) downstream from Hickory Forest Creek, 400 ft (122 m) upstream from bridge on State Highway 863 between Callahans Store and Mount Cross, 5.5 mi (8.8 km) northwest of western corporate limits of Danville, and 5.8 mi (9.3 km) upstream from mouth.

DRAINAGE AREA.--112 mi² (290 km²).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 460.38 ft (140.324 m) above mean sea level. Prior to June 26, 1942, at site 1,200 ft (366 m) downstream at datum 5.57 ft (1.698 m) lower.

AVERAGE DISCHARGE.--45 years, 104 ft³/s or 2.945 m³/s (12.61 in/yr or 320 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,270 ft³/s (121 m³/s) Sept. 6 (gage height, 6.60 ft or 2.012 m); minimum, 44 ft³/s (1.25 m³/s) Aug. 1, 2 (gage height, 1.23 ft or 0.375 m).
Period of record: Maximum discharge, 23,000 ft³/s (651 m³/s) Aug. 14, 1940 (gage height, 14.8 ft or 4.51 m, present datum, from floodmarks), from rating curve extended above 11,000 ft³/s (312 m³/s); minimum, 3 ft³/s (0.08 m³/s) Sept. 29, 1930 (gage height, 0.40 ft or 0.122 m, site and datum then in use); minimum daily, 8 ft³/s (0.23 m³/s) Aug. 29, 31, Sept. 1, 2, 1932.

REMARKS.--Records good. Diurnal fluctuation at low flow caused by small mill above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 972: 1930-41. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	82	76	627	116	109	135	90	143	64	44	68
2	143	75	73	216	114	105	135	94	118	61	45	115
3	99	71	73	166	132	105	123	109	127	60	52	136
4	76	69	73	218	132	103	579	94	94	58	356	148
5	59	80	146	184	114	101	725	99	84	66	230	86
6	66	80	143	153	125	103	276	135	82	185	97	1,300
7	65	71	96	153	256	103	196	101	82	217	82	1,550
8	77	71	94	127	267	99	175	92	76	82	73	256
9	77	71	709	214	238	97	256	148	76	80	73	163
10	70	67	226	210	163	96	169	123	73	67	78	125
11	69	67	135	169	145	96	145	105	75	67	66	114
12	67	69	109	143	132	114	137	112	69	64	61	99
13	67	69	109	123	123	118	145	135	67	58	61	92
14	66	71	123	114	123	101	137	101	118	56	58	82
15	66	71	105	114	114	97	125	94	140	55	58	83
16	62	71	118	109	134	105	116	88	176	66	58	78
17	61	67	132	175	179	109	112	84	99	56	67	78
18	61	67	114	101	171	99	116	82	82	56	80	82
19	62	69	105	99	161	97	129	96	75	55	203	75
20	64	67	220	97	161	118	105	84	71	55	94	71
21	66	71	2,920	797	132	522	131	82	73	51	75	71
22	67	84	413	332	186	276	131	80	71	51	66	67
23	64	78	210	186	151	169	152	99	67	50	62	67
24	66	73	169	148	135	142	116	92	64	55	62	64
25	64	73	143	153	125	129	139	78	62	55	67	66
26	64	73	137	158	116	116	101	73	66	55	86	66
27	66	75	153	187	112	116	99	140	66	95	67	66
28	67	[illegible]	129	161	159	109	96	97	75	92	61	86
29	196	137	114	158	------	118	96	86	76	93	58	75
30	96	82	116	135	------	220	92	80	76	68	58	64
31	78	------	266	123	------	186	------	92	------	65	60	------
TOTAL	2,319	2,220	7,771	6,075	4,144	4,170	5,098	3,071	2,623	2,098	2,730	5,488
MEAN	74.8	74.0	251	196	148	135	170	99.1	87.4	67.7	88.1	183
MAX	196	137	2,920	797	267	522	725	148	176	217	356	1,550
MIN	59	67	73	97	112	96	92	73	62	50	44	64
CFSM	.67	.66	2.24	1.75	1.32	1.20	1.52	.88	.78	.60	.79	1.63
IN.	.77	.74	2.58	2.02	1.37	1.39	1.69	1.02	.87	.70	.91	1.82

CAL YR 1973 TOTAL 54,962 MEAN 150 MAX 2,920 MIN 56 CFSM 1.34 IN 18.22
WTR YR 1974 TOTAL 47,807 MEAN 131 MAX 2,920 MIN 44 CFSM 1.17 IN 15.88

PEAK DISCHARGE (BASE, 1,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0700	6.06	2,870	9- 6	0600	5.76	3,000
1-21	1800	4.96	1,620	9- 6	2300	6.60	4,270
9- 5	2300	4.87	1,900				

02075000 DAN RIVER AT DANVILLE, VA.

LOCATION.--Lat 36°35'15", long 79°22'55", Danville City, on left bank 50 ft (20 m) downstream from Southern Railway bridge, 1,000 ft (300 m) upstream from Fall Creek, and at mile 62.7.

DRAINAGE AREA.--2,050 mi² (5,310 km²), approximately.

PERIOD OF RECORD.--August 1934 to current year. Gage-height records collected in this vicinity 1890-1934, at same site 1934-49, and at Main Street Bridge, 0.25 mi (0.40 km) upstream 1949-68, are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 379.29 ft (115.608 m) above mean sea level.

AVERAGE DISCHARGE.--40 years, 2,308 ft³/s or 65.36 m³/s (15.29 in/yr or 388 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 25,800 ft³/s (731 m³/s) Dec. 21 (gage height, 12.70 ft or 3.871 m); minimum, 554 ft³/s (15.7 m³/s) Oct. 7 (gage height, 2.13 ft or 0.649 m); minimum daily, 920 ft³/s (26.1 m³/s) July 22.

Period of record: Maximum discharge, 75,000 ft³/s (2,120 m³/s) Aug. 15, 1940 (gage height, 20.96 ft or 6.389 m); maximum gage height, 21.34 ft (6.504 m) June 22, 1972 (backwater from debris); minimum discharge, 11 ft³/s (0.31 m³/s) Sept. 5, 1966 (gage height, 1.18 ft or 0.360 m); minimum daily, 110 ft³/s (3.12 m³/s) Sept. 5, 1966.

REMARKS.--Records good. Diurnal fluctuation caused by cotton mills above station. Since August 1950, flow regulated by Philpott Lake 74.7 mi (120.2 km) upstream (see sta 02071900). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 972: 1936.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,000	1,430	1,490	7,560	3,110	2,420	3,770	1,750	2,660	1,360	1,430	2,000
2	1,740	1,370	1,280	6,790	2,930	2,360	3,080	1,720	4,290	1,290	1,450	2,500
3	3,490	1,410	1,180	4,790	2,440	1,960	2,820	1,950	3,640	1,370	1,520	2,100
4	2,110	1,320	1,220	4,420	2,410	1,780	3,400	2,010	3,200	1,400	2,250	2,550
5	1,540	1,150	1,510	4,490	2,870	1,920	18,800	1,690	2,550	1,400	6,410	2,260
6	1,400	1,340	2,780	4,060	2,810	2,080	23,200	1,990	2,390	1,680	5,640	5,170
7	1,320	1,390	2,650	3,300	4,220	2,100	8,480	2,010	2,270	7,340	5,170	21,900
8	1,080	1,350	1,880	3,460	5,400	2,020	4,110	1,720	2,200	4,410	2,820	12,000
9	1,070	1,260	5,080	3,840	6,180	1,950	5,900	2,390	1,880	2,080	2,460	4,320
10	1,550	1,280	6,230	4,650	3,830	1,680	5,120	3,160	1,610	1,750	2,810	3,160
11	1,580	1,190	3,100	4,160	2,920	1,470	3,830	2,580	1,550	1,590	2,800	2,990
12	1,470	1,060	2,290	3,780	2,900	1,780	3,450	2,070	1,650	1,520	1,980	3,220
13	1,460	1,100	2,400	3,460	2,790	2,130	3,330	3,870	1,680	1,420	1,580	2,760
14	1,290	1,210	2,450	2,630	2,660	2,130	2,790	3,540	1,700	1,280	1,590	2,370
15	1,030	1,270	2,500	2,860	2,580	1,870	2,450	2,750	2,010	1,050	1,530	1,970
16	1,000	1,210	2,500	2,940	2,610	1,850	2,870	2,550	1,820	1,120	1,510	1,680
17	1,150	1,240	2,600	2,770	3,080	1,890	2,810	2,500	1,720	1,330	1,520	1,570
18	1,120	1,170	2,650	2,670	3,140	1,780	3,270	2,400	1,680	1,250	1,550	2,150
19	1,100	1,070	2,600	2,650	3,060	1,730	3,580	2,300	1,600	1,240	2,370	2,150
20	1,110	1,120	2,550	2,190	3,090	1,870	2,890	2,820	1,540	1,160	1,550	2,000
21	1,090	1,210	17,000	6,770	2,840	3,540	2,050	3,820	1,530	1,170	1,420	1,850
22	1,020	1,290	20,300	18,300	2,870	8,210	1,790	2,660	1,820	920	1,400	1,690
23	996	1,420	6,060	6,600	3,350	4,090	2,410	2,370	1,520	1,000	1,350	1,200
24	1,090	1,340	3,870	4,070	2,820	2,820	2,970	3,110	1,310	1,160	1,310	1,200
25	1,160	1,200	3,670	3,680	2,410	2,370	2,440	2,810	1,280	1,200	1,210	1,260
26	1,100	1,120	2,910	3,950	2,490	2,310	2,220	2,110	1,430	1,250	1,150	1,260
27	1,110	1,200	4,340	5,000	2,530	2,260	2,140	2,310	1,460	2,110	1,720	1,240
28	1,080	1,440	5,540	4,430	2,490	2,170	1,790	3,430	1,530	1,590	1,400	1,320
29	1,580	1,870	3,870	4,650	------	2,130	1,550	2,730	1,630	1,240	1,350	1,420
30	2,190	1,760	3,110	4,150	------	3,490	1,590	2,110	1,610	1,370	1,300	1,270
31	1,650	------	2,960	3,450	------	6,510	------	1,860	------	1,470	1,300	------
TOTAL	42,646	38,790	124,560	142,520	86,830	78,670	130,900	77,090	58,760	51,520	64,850	94,530
MEAN	1,376	1,293	4,018	4,597	3,101	2,538	4,363	2,487	1,959	1,662	2,092	3,151
MAX	3,490	1,870	20,300	18,300	6,180	8,210	23,200	3,870	4,290	7,340	6,410	21,900
MIN	996	1,060	1,180	2,190	2,410	1,470	1,550	1,690	1,280	920	1,150	1,200
(†)	-40	+7	+183	-69	-17	+46	-24	-17	+41	-62	-71	+24
MEAN‡	1,336	1,300	4,201	4,528	3,084	2,584	4,339	2,470	2,000	1,600	2,021	3,175
CFSM‡	.65	.63	2.05	2.21	1.50	1.26	2.12	1.20	.98	.78	.99	1.55
IN‡	.75	.71	2.36	2.55	1.57	1.45	2.36	1.39	1.09	.90	1.14	1.73

CAL YR 1973 TOTAL 1,094,606 MEAN 2,999 MAX 26,000 MIN 893 MEAN‡ 3,002 CFSM‡ 1.46 IN‡ 19.89

WTR YR 1974 TOTAL 991,666 MEAN 2,717 MAX 23,200 MIN 920 MEAN‡ 2,717 CFSM‡ 1.33 IN‡ 18.00

† CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN PHILPOTT LAKE; FURNISHED BY CORPS OF ENGINEERS.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

02075500 DAN RIVER AT PACES, VA.

LOCATION.--Lat 36°38'32", long 79°05'23", Halifax County, on right bank 100 ft (30 m) upstream from bridge on State Highway 658, 0.5 mi (0.8 km) southeast of Paces, 0.5 mi (0.8 km) upstream from Big Toby Creek, 2.7 mi (4.3 km) upstream from Birch Creek, and at mile 36.0.

DRAINAGE AREA.--2,550 mi² (6,600 km²), approximately.

PERIOD OF RECORD.--November 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 322.48 ft (98.292 m) above mean sea level.

AVERAGE DISCHARGE.--23 years (1951-74), 2,737 ft³/s or 77.51 m³/s (14.58 in/yr or 370 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 25,700 ft³/s (728 m³/s) Sept. 8 (gage height, 23.32 ft or 7.108 m); minimum, 925 ft³/s (26.2 m³/s) Oct. 23 (gage height, 3.43 ft or 1.045 m); minimum daily, 1,050 ft³/s (29.7 m³/s) July 23.

Period of record: Maximum discharge, 64,800 ft³/s (1,840 m³/s) June 23, 1972 (gage height, 33.15 ft or 10.104 m), from rating curve extended above 32,000 ft³/s (906 m³/s); minimum, 193 ft³/s (5.47 m³/s) Sept. 4, 1956 (gage height, 1.71 ft or 0.521 m); minimum daily, 244 ft³/s (6.91 m³/s) Sept. 4, 1956.

Flood of Aug. 16, 1940, reached a stage of 32.3 ft (9.85 m), from floodmark.

REMARKS.--Records good. Diurnal fluctuation caused by cotton mills at Danville. Since August 1950, flow regulated by Philpott Lake 101.4 mi (163.2 km) upstream (see sta 02071900). Water-quality records for the current year are included in this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,120	1,810	1,920	6,030	4,050	3,130	5,780	2,410	3,130	1,740	1,700	2,110
2	1,440	1,710	1,710	9,010	3,770	3,060	4,060	2,450	5,670	1,490	1,670	3,100
3	3,720	1,630	1,480	5,600	3,580	2,920	3,670	2,550	4,250	1,590	1,900	2,460
4	3,400	1,610	1,330	5,150	3,250	2,510	3,420	2,720	3,630	1,580	2,140	3,400
5	2,130	1,480	1,600	5,110	3,320	2,430	10,900	2,600	3,030	1,600	5,470	3,320
6	1,780	1,500	2,440	4,680	3,520	2,770	18,500	2,700	2,940	1,970	8,460	5,010
7	1,430	1,620	3,930	4,190	4,720	2,850	18,500	2,970	2,850	6,910	7,040	20,800
8	1,590	1,630	2,680	3,530	6,600	2,750	6,410	2,740	2,770	7,810	4,120	25,100
9	1,300	1,540	4,870	4,450	7,820	2,660	7,590	2,670	2,640	3,120	3,000	14,900
10	1,500	1,470	9,610	5,770	5,780	2,590	7,440	4,100	2,110	2,430	3,200	4,220
11	1,890	1,420	5,290	5,150	4,090	2,180	5,380	3,720	1,890	2,110	3,440	3,350
12	1,810	1,250	3,370	4,380	3,610	2,280	4,530	3,210	2,120	1,900	2,470	3,680
13	1,730	1,200	2,760	3,950	3,610	2,860	4,210	3,490	2,060	1,790	1,910	3,280
14	1,690	1,320	2,750	3,470	3,430	2,950	4,030	4,900	1,870	1,660	1,920	2,810
15	1,250	1,420	2,910	2,820	3,330	2,680	3,460	3,610	2,190	1,350	1,780	2,540
16	1,150	1,450	2,830	3,260	3,390	2,550	3,350	3,370	2,350	1,240	1,750	2,030
17	1,220	1,420	3,050	3,110	4,200	2,780	3,570	3,180	2,090	1,510	1,930	1,900
18	1,270	1,400	3,200	2,970	4,360	2,720	3,500	3,080	2,010	1,550	1,950	2,540
19	1,240	1,280	3,090	2,850	4,060	2,450	4,400	3,070	1,950	1,430	2,930	2,690
20	1,220	1,170	3,040	2,810	4,070	2,560	3,730	2,620	1,830	1,460	3,380	2,420
21	1,270	1,340	10,000	3,700	3,850	3,570	3,330	4,160	1,770	1,370	2,470	2,250
22	1,150	1,470	20,500	15,000	4,070	8,340	2,700	3,510	2,070	1,210	1,810	2,150
23	1,090	1,650	18,800	15,000	4,880	6,420	2,870	2,960	2,070	1,050	1,720	1,550
24	1,190	1,650	5,980	5,700	4,250	4,050	3,560	3,200	1,640	1,270	1,590	1,450
25	1,260	1,520	4,370	4,690	3,460	3,320	3,430	3,470	1,420	1,340	1,540	1,550
26	1,250	1,330	4,070	5,180	3,160	3,060	3,020	3,000	1,620	1,420	1,390	1,590
27	1,240	1,290	3,760	7,570	3,270	3,050	2,900	2,750	1,720	2,320	2,090	1,550
28	1,280	1,590	6,420	6,950	3,200	2,970	2,830	3,640	1,780	2,240	1,690	1,500
29	1,350	1,930	4,590	6,250	------	2,900	2,390	3,590	1,980	1,740	1,620	1,740
30	2,590	2,440	3,880	5,800	------	3,980	2,280	3,120	2,020	1,320	1,550	1,500
31	2,290	------	3,410	4,610	------	7,410	------	2,900	------	1,730	1,630	------
TOTAL	49,830	45,540	149,640	168,740	114,700	102,750	155,740	98,460	71,480	63,250	81,260	128,590
MEAN	1,607	1,518	4,827	5,443	4,096	3,315	5,191	3,176	2,383	2,040	2,621	4,286
MAX	3,720	2,440	20,500	15,000	7,820	8,340	18,500	4,900	5,670	7,810	8,460	25,100
MIN	1,090	1,170	1,330	2,810	3,160	2,180	2,280	2,410	1,420	1,050	1,390	1,450
(*)	-40	+7	+183	-69	-17	+46	-24	-17	+41	-62	-71	+24
MEAN†	1,567	1,525	5,010	5,374	4,079	3,361	5,167	3,159	2,424	1,978	2,550	4,310
CFSM†	.61	.60	1.96	2.11	1.60	1.32	2.03	1.24	.95	.78	1.00	1.69
IN†	.71	.67	2.27	2.43	1.67	1.52	2.26	1.43	1.06	.89	1.15	1.89

CAL YR 1973 TOTAL 1,305,523 MEAN 3,577 MAX 24,600 MIN 913 MEAN† 3,580 CFSM† 1.40 IN† 19.06
WTR YR 1974 TOTAL 1,229,900 MEAN 3,370 MAX 25,100 MIN 1,050 MEAN† 3,370 CFSM† 1.32 IN† 17.94

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN PHILPOTT LAKE; FURNISHED BY CORPS OF ENGINEERS.
† ADJUSTED FOR CHANGE IN CONTENTS.

02076500 GEORGES CREEK NEAR GRETNA, VA.

LOCATION.--Lat 36°56'11", long 79°18'42", Pittsylvania County, on left bank 15 ft (5 m) downstream from bridge on State Highway 40, 2.8 mi (4.5 km) southeast of Gretna, and 5.8 mi (9.3 km) upstream from Whitethorn Creek.

DRAINAGE AREA.--9.24 mi² (23.93 km²).

PERIOD OF RECORD.--September 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 629.54 ft (191.884 m) above mean sea level.

AVERAGE DISCHARGE.--25 years, 9.22 ft³/s or 0.261 m³/s (13.55 in/yr or 344 mm/yr).

EXTREMES.--Current year: Maximum discharge, 935 ft³/s (26.5 m³/s) Sept. 6 (gage height, 6.91 ft or 2.106 m), from rating curve extended as explained below; minimum, 2.1 ft³/s (0.059 m³/s) July 31, Aug. 1 (gage height, 0.87 ft or 0.265 m).

Period of record: Maximum discharge, 1,440 ft³/s (40.8 m³/s) Aug. 24, 1967, from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurements at gage heights 4.93 ft (1.503 m), 6.22 ft (1.896 m), and 7.75 ft (2.362 m); maximum gage height, 7.75 ft (2.362 m) June 21, 1972; minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Mar. 12, Apr. 5, 1956, July 28, 1966.

REMARKS.--Records good. Occasional regulation at low flow from unknown source. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS (WATER YEARS).--WSP 1703: 1950-52. WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	9.0	7.7	30	11	11	12	9.0	22	5.6	3.1	12
2	29	7.7	7.9	16	11	11	12	9.2	14	5.4	3.7	11
3	10	7.5	7.7	14	12	11	11	10	10	5.0	4.9	30
4	8.3	7.5	7.7	15	11	10	84	8.6	8.6	4.6	9.7	20
5	7.9	9.3	16	13	10	10	30	9.5	8.2	6.3	7.8	13
6	7.9	8.8	9.6	13	11	11	15	11	8.0	9.0	6.0	227
7	8.1	7.9	7.9	13	14	11	12	8.8	7.8	7.8	6.0	133
8	8.8	7.9	9.0	12	13	9.9	13	8.6	7.8	7.0	6.4	14
9	7.9	7.7	52	16	12	9.7	13	11	7.8	6.2	6.0	11
10	7.7	7.5	13	15	12	9.9	12	9.7	7.4	5.4	5.8	8.8
11	7.5	7.5	10	14	12	9.9	12	9.0	7.0	5.0	5.8	7.9
12	7.2	7.7	9.6	12	12	12	12	12	6.6	5.0	5.4	7.2
13	6.8	7.7	11	11	12	13	12	11	6.6	3.9	8.2	6.7
14	6.8	7.7	11	11	11	11	12	9.0	6.8	4.4	6.0	6.4
15	6.7	7.7	10	11	11	10	11	8.6	6.8	4.0	5.4	6.2
16	6.7	7.9	10	11	12	11	10	8.2	8.2	4.2	5.4	6.2
17	6.4	7.9	11	10	13	11	11	8.0	7.2	4.0	5.2	6.1
18	6.4	7.7	10	10	12	9.9	11	9.0	6.6	4.0	5.4	6.2
19	6.5	7.9	9.6	10	13	10	10	9.0	6.4	4.2	6.4	5.8
20	6.5	7.7	24	10	12	12	9.9	8.2	6.4	3.9	5.4	5.7
21	6.5	8.3	148	26	11	26	10	8.0	6.6	4.0	5.2	5.7
22	6.5	8.8	19	15	14	15	10	8.0	6.6	4.0	5.0	6.1
23	6.5	7.7	14	12	13	13	12	8.6	6.4	3.5	5.0	5.8
24	6.5	7.7	13	12	12	12	11	8.0	6.2	4.2	5.2	5.5
25	6.5	7.7	12	13	12	11	11	7.6	6.0	4.0	5.2	5.5
26	6.5	7.9	13	16	11	11	10	7.6	6.6	4.0	8.8	5.5
27	6.5	7.9	13	16	11	10	9.9	11	6.6	4.8	56	5.5
28	7.0	11	11	13	11	10	9.9	8.2	6.8	4.4	8.4	6.0
29	14	9.3	11	13	------	12	9.9	8.0	6.8	4.0	7.4	6.1
30	8.8	7.9	12	12	------	16	9.5	8.2	6.2	3.7	13	5.5
31	7.7	------	30	11	------	13	------	8.2	------	3.1	11	------
TOTAL	253.5	242.4	550.7	426	332	363.3	428.1	278.8	235.0	148.6	248.2	601.4
MEAN	8.18	8.08	17.8	13.7	11.9	11.7	14.3	8.99	7.83	4.79	8.01	20.0
MAX	29	11	148	30	14	26	84	12	22	9.0	56	227
MIN	6.4	7.5	7.7	10	10	9.7	9.5	7.6	6.0	3.1	3.1	5.5
CFSM	.89	.87	1.93	1.48	1.29	1.27	1.55	.97	.85	.52	.87	2.16
IN	1.02	.98	2.22	1.72	1.34	1.46	1.72	1.12	.95	.60	1.00	2.42

CAL YR 1973 TOTAL 4,936.7 MEAN 13.5 MAX 148 MIN 5.8 CFSM 1.46 IN 19.88
WTR YR 1974 TOTAL 4,108.0 MEAN 11.3 MAX 227 MIN 3.1 CFSM 1.22 IN 16.54

PEAK DISCHARGE (BASE, 150 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0830	4.36	370	9- 3	2200	3.43	222
4- 4	1630	4.00	305	9- 6	2300	6.91	935
8-27	0330	4.13	330				

02077000 BANISTER RIVER AT HALIFAX, VA.

LOCATION.--Lat 36°46'35", long 78°54'58", Halifax County, on left bank 10 ft (3 m) downstream from bridge on U.S. Highway 360, 1,700 ft (520 m) downstream from Terrible Creek, 1 mi (1.6 km) northeast of Halifax, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--547 mi² (1,417 km²).

PERIOD OF RECORD.--September 1904 to December 1905, October 1928 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 318.54 ft (97.091 m) above mean sea level (levels by Corps of Engineers). Sept. 28, 1904, to Dec. 31, 1905, nonrecording gage at site 400 ft (120 m) upstream at different datum. Dec. 9, 1928, to Sept. 20, 1950, water-stage recorder at site 400 ft (120 m) upstream at present datum.

AVERAGE DISCHARGE.--47 years (1904-5, 1928-74), 498 ft³/s or 14.10 m³/s (12.36 in/yr or 314 mm/yr).

EXTREMES.--Current year: Maximum discharge, 9,360 ft³/s (265 m³/s) Sept. 8 (gage height, 22.45 ft or 6.843 m); minimum daily, 103 ft³/s (2.92 m³/s) Nov. 27.

Period of record: Maximum discharge, 50,000 ft³/s (1,420 m³/s) Sept. 20, 1944 (gage height, 40.8 ft or 12.44 m, from floodmarks), from rating curve extended above 11,000 ft³/s (312 m³/s) on basis of slope-area measurement of peak flow and velocity-area study; minimum, 6.0 ft³/s (0.17 m³/s) on many days in August and September 1932; minimum daily, 6.0 ft³/s (0.17 m³/s) Aug. 30, 1932.

REMARKS.--Records good. Low and medium flow regulated at times during year by a lake 0.5 mi (0.8 km) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 892: 1929-30, 1932-35. WSP 972: 1938(M), 1940. WSP 1112: 1943(M). WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	175	296	262	1,270	573	526	934	337	633	212	137	539
2	257	294	245	1,900	534	419	710	332	874	193	144	805
3	494	321	232	1,160	570	464	683	383	1,300	181	161	601
4	421	336	225	927	727	473	650	407	1,130	170	346	621
5	290	332	268	1,090	682	459	1,290	379	661	163	643	737
6	227	327	471	910	586	454	1,720	501	326	228	722	1,550
7	202	287	471	762	913	458	1,270	534	372	553	424	5,780
8	213	224	371	726	1,270	447	873	413	354	667	295	8,690
9	257	178	1,010	787	1,190	428	1,550	498	332	504	277	4,710
10	275	173	1,650	1,340	1,000	418	1,510	779	306	290	287	1,260
11	246	180	1,090	1,220	838	405	946	618	289	219	307	754
12	224	185	574	941	740	469	733	558	260	190	252	524
13	214	189	376	742	679	616	661	688	240	175	214	397
14	208	202	492	613	645	611	640	573	227	164	212	396
15	219	214	482	562	621	499	610	444	223	158	200	355
16	226	217	475	541	649	487	453	384	244	157	181	326
17	216	216	556	471	836	586	474	360	259	173	172	307
18	207	214	529	430	999	553	511	340	259	170	168	300
19	205	213	439	458	887	488	490	422	225	156	198	289
20	208	213	488	448	896	507	451	438	206	148	243	267
21	211	290	1,540	570	826	899	430	365	202	142	282	250
22	215	358	3,560	1,440	822	1,900	418	320	208	139	217	234
23	213	285	3,150	1,240	1,280	1,450	533	322	210	136	181	228
24	215	240	1,490	809	1,020	869	627	341	199	135	167	219
25	201	238	824	678	750	671	496	328	190	137	164	212
26	272	159	665	716	643	579	429	284	218	145	168	211
27	426	103	668	956	576	534	403	395	219	263	297	207
28	423	124	650	1,010	540	427	387	495	261	223	927	215
29	426	143	552	848	------	489	373	410	255	171	704	231
30	417	208	515	746	------	754	366	341	236	160	248	234
31	348	------	542	642	------	1,210	------	328	------	165	291	------
TOTAL	8,350	6,950	24,872	26,949	22,300	19,545	21,610	13,317	10,908	6,667	9,229	31,649
MEAN	269	232	802	869	796	630	720	430	364	215	298	1,055
MAX	494	358	3,560	1,900	1,280	1,900	1,720	779	1,300	667	927	8,690
MIN	175	103	225	430	534	405	366	284	190	135	137	207
CFSM	.49	.42	1.47	1.59	1.46	1.15	1.32	.79	.67	.39	.54	1.93
IN	.57	.47	1.69	1.83	1.52	1.33	1.47	.91	.74	.45	.63	2.15

CAL YR 1973 TOTAL 233,711 MEAN 640 MAX 6,330 MIN 103 CFSM 1.17 IN 15.89
WTR YR 1974 TOTAL 202,346 MEAN 554 MAX 8,690 MIN 103 CFSM 1.01 IN 13.76

02077500 HYCO RIVER NEAR DENNISTON, VA.

LOCATION.--Lat 36°35'16", long 78°53'56", Halifax County, on left bank 10 ft (3 m) upstream from bridge on U.S. Highway 501, 0.8 mi (1.3 km) upstream from Mayo Creek, 2.5 mi (4.0 km) northeast of Denniston, and 7.3 mi (11.7 km) south of South Boston.

DRAINAGE AREA.--289 mi^2 (749 km^2).

PERIOD OF RECORD.--October 1928 to September 1934, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1303.

GAGE.--Water-stage recorder. Datum of gage is 315.24 ft (96.085 m) above mean sea level. July 10, 1929, to Mar. 14, 1934, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 245 ft^3/s or 6.938 m^3/s (11.51 in/yr or 292 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 11,700 ft^3/s (331 m^3/s) Sept. 8 (gage height, 22.62 ft or 6.895 m), from rating curve extended above 4,000 ft^3/s (113 m^3/s); minimum daily, 8.9 ft^3/s (0.25 m^3/s) Oct. 23.

Period of record: Maximum discharge, 11,700 ft^3/s (331 m^3/s) Sept. 8, 1974 (gage height, 22.62 ft or 6.895 m), from rating curve extended above 4,000 ft^3/s (113 m^3/s); minimum, 0.004 ft^3/s (<0.001 m^3/s) Sept. 14, 1932 (gage height, 3.58 ft or 1.091 m), result of discharge measurement.

Floods in August 1928 and September 1945 reached stages of 26.4 ft (8.05 m) and 25.6 ft (7.80 m), respectively, from floodmarks.

REMARKS.--Records good except those for period of doubtful gage-height record, which are fair. Small diurnal fluctuation at low flow in some years caused by mill above station. Since 1964, flow regulated by Hyco Lake 15.7 mi (25.3 km) upstream, capacity 75,480 acre-ft (93.1 hm^3), and since Apr. 26, 1975, by Roxboro Steam-Electric Generating Plant afterbay Reservoir, capacity 12,000 acre-ft (14.8 hm^3). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1383: Drainage area, 1930. WSP 1503: 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	16	15	823	616	389	298	67	84	28	25	42
2	17	16	14	765	466	381	271	66	83	30	47	153
3	17	15	10	820	401	372	257	76	72	35	40	156
4	16	14	9.4	745	373	353	249	66	67	36	65	1,310
5	15	15	13	698	338	269	284	58	59	36	152	597
6	14	26	19	649	317	262	283	199	53	42	200	1,440
7	14	20	18	521	469	260	260	149	50	48	375	6,430
8	12	17	15	492	632	262	274	183	48	45	84	7,600
9	23	17	219	845	870	335	927	206	45	43	98	5,110
10	19	15	113	1,320	743	359	902	391	41	36	87	2,930
11	16	15	45	1,190	572	266	638	514	40	29	74	777
12	15	18	31	932	441	241	473	518	42	40	67	201
13	14	16	27	604	362	327	452	722	38	28	66	159
14	14	17	34	453	316	272	449	266	35	26	64	138
15	13	17	39	316	295	243	405	158	33	24	63	122
16	12	18	50	284	324	247	267	135	31	24	67	112
17	12	17	206	268	997	359	226	72	30	49	66	105
18	11	15	123	230	897	274	215	72	30	27	73	109
19	10	13	89	224	743	247	193	111	29	25	78	98
20	10	11	134	208	718	249	171	85	28	24	545	91
21	11	13	1,470	597	577	355	154	66	27	24	978	87
22	9.9	17	1,190	827	571	394	145	62	27	43	576	83
23	8.9	19	220	663	732	285	127	58	25	30	384	81
24	9.6	16	173	539	549	258	71	63	24	27	106	80
25	11	15	173	435	446	260	61	61	22	27	96	78
26	15	14	179	622	350	245	59	57	22	31	92	77
27	15	15	198	1,270	304	247	60	72	23	87	91	75
28	13	17	171	1,240	367	239	65	82	28	51	90	88
29	17	20	153	1,310	------	233	63	60	33	29	88	111
30	24	18	159	1,300	------	405	67	60	30	26	87	78
31	19	------	189	996	------	449	------	62	------	25	41	------
TOTAL	442.4	492	5,498.4	22,186	14,776	9,313	8,366	4,816	1,199	1,075	4,965	28,518
MEAN	14.3	16.4	177	716	528	300	279	155	40.0	34.7	160	951
MAX	24	26	1,470	1,320	997	449	927	722	84	87	978	7,600
MIN	8.9	11	9.4	208	295	233	59	57	22	24	25	42
(*)	+32	+58	-5	-10	+12	+33	-18	+54	+63	+32	+84	-73

CAL YR 1973 TOTAL 100,195.8 MEAN 275 MAX 4,060 MIN 8.9 MEAN# 276 CFSM# .96 IN# 12.97
WTR YR 1974 TOTAL 101,626.6 MEAN 278 MAX 7,600 MIN 8.9 MEAN# 289 CFSM# 1.00 IN# 13.58

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN HYCO LAKE AND, SINCE APR. 26, ROXBORO STEAM-ELECTRIC GENERATING PLANT AFTERBAY RESERVOIR.
# ADJUSTED FOR CHANGE IN CONTENTS.
NOTE.--DOUBTFUL GAGE-HEIGHT RECORD OCT. 1 TO JULY 25.

02079640 ALLEN CREEK NEAR BOYDTON, VA.

LOCATION.--Lat 36°40'46", long 78°19'37", Mecklenburg County, on left bank at upstream side of bridge on U.S. Highway 58, 0.8 mi (1.3 km) upstream from Coleman Creek, 2.3 mi (3.7 km) downstream from Layton Creek, 3.7 mi (6.0 km) east of Boydton, and 11.8 mi (19.0 km) southwest of South Hill.

DRAINAGE AREA.--53.4 mi² (138.3 km²).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 216.50 ft (65.989 m) abcve mean sea level (levels by Virginia Department of Highways and Transportation).

AVERAGE DISCHARGE.--13 years, 37.6 ft³/s or 1.065 m³/s (9.56 in/yr or 243 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,110 ft³/s (88.1 m³/s) Sept. 7 (gage height, 18.58 ft or 5.663 m); minimum, 2.7 ft³/s (0.076 m³/s) July 23, 24 (gage height, 1.48 ft or 0.451 m).

Period of record: Maximum discharge, 5,620 ft³/s (159 m³/s) Oct. 23, 1971 (gage height, 21.80 ft or 6.645 m), from rating curve extended above 3,100 ft³/s (87.8 m³/s); no flow many days in August, September, and October 1968, September and October 1970.

REMARKS.--Records good except those for period of no gage-height record, which are fair.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

REVISIONS.--WRD Va. 1970: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4.9	7.0	435	45	34	76	20	50	11	3.9	10
2	4.0	5.4	6.0	89	41	32	57	22	55	9.5	3.9	32
3	4.4	6.1	5.2	62	41	30	46	113	140	8.6	4.7	41
4	4.4	6.6	5.2	144	46	29	43	39	50	8.1	5.1	798
5	4.2	9.5	5.5	87	39	28	46	36	30	8.4	12	55
6	4.1	12	5.8	54	35	28	43	173	20	10	26	444
7	3.6	5.4	5.6	50	83	28	36	52	15	17	31	1,820
8	3.8	5.8	6.1	44	135	27	35	40	16	14	14	126
9	8.3	3.7	105	150	92	25	88	42	15	10	42	48
10	6.2	4.3	25	114	68	25	51	50	14	8.6	15	28
11	5.0	4.4	13	71	84	24	41	37	16	7.3	10	22
12	4.3	4.6	8.5	54	44	37	37	55	14	6.4	8.1	18
13	4.2	4.6	8.1	41	40	48	41	140	12	5.5	8.0	16
14	4.2	5.0	37	37	38	34	39	60	11	5.1	9.7	14
15	4.1	5.4	17	35	36	29	36	35	10	4.8	9.9	13
16	4.2	6.1	65	34	116	95	30	28	10	4.5	8.4	13
17	4.3	6.4	91	32	403	145	36	26	12	4.1	7.3	12
18	4.1	6.2	34	30	92	54	64	25	11	3.9	6.8	13
19	3.9	6.4	30	28	74	41	39	50	9.3	3.7	81	11
20	3.9	6.7	108	27	86	60	32	30	9.0	3.6	18	11
21	4.1	7.3	1,690	174	62	212	29	21	81	3.4	10	10
22	4.1	6.5	176	119	137	113	28	18	25	3.1	8.4	11
23	4.0	8.7	65	56	102	57	46	17	17	2.9	25	10
24	3.9	6.1	50	44	56	46	37	16	13	3.3	11	9.5
25	3.7	7.7	40	50	46	38	29	15	11	8.6	8.3	9.1
26	3.9	7.6	37	220	39	36	27	14	10	5.6	10	9.3
27	4.1	7.5	35	227	36	34	26	33	14	33	14	9.0
28	4.1	7.7	32	112	35	32	24	35	17	12	9.0	9.3
29	8.3	9.5	26	206	------	33	23	29	18	7.0	7.5	11
30	9.3	9.3	34	77	------	190	22	22	13	5.5	6.8	9.1
31	5.6	------	60	55	------	167	------	24	------	4.5	12	------
TOTAL	143.9	200.1	2,833.0	2,958	2,113	1,831	1,207	1,313	730.3	243.0	446.0	3,642.3
MEAN	4.64	6.67	91.4	95.4	75.5	59.1	40.2	42.4	24.3	7.84	14.4	121
MAX	9.3	12	1,690	435	403	212	88	173	140	33	81	1,820
MIN	3.6	3.7	5.2	27	35	24	22	14	9.0	2.9	3.9	9.0
CFSM	.09	.12	1.71	1.79	1.41	1.11	.75	.79	.46	.15	.27	2.27
IN	.10	.14	1.97	2.06	1.47	1.28	.84	.91	.51	.17	.31	2.54

CAL YR 1973 TOTAL 19,122.0 MEAN 52.4 MAX 1,690 MIN 2.0 CFSM .98 IN 13.32
WTR YR 1974 TOTAL 17,660.6 MEAN 48.4 MAX 1,820 MIN 2.9 CFSM .91 IN 12.31

PEAK DISCHARGE (BASE, 850 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	1600	17.39	2,450	9- 7	0400	18.58	3,110
9- 6	0630	13.39	1,020				

NOTE.--NO GAGE-HEIGHT RECORD MAY 8 TO JUNE 10.

RESERVOIRS IN ROANOKE RIVER BASIN, VA.

02057400 SMITH MOUNTAIN LAKE.--Lat 37°02'28", long 79°32'09", Pittsylvania County, at dam on Roanoke (Staunton) River 6.5 mi (10.5 km) northeast of Penhook, and at mile 314.0. Drainage area, 1,024 mi² (2,652 km²). Period of record, September 1963 to current year. Gage, water-stage recorder. Datum of gage is mean sea level. Prior to July 19, 1965, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 1,142,000 acre-ft (1,410 hm³) many days in January, April, and May (elevation, 795.0 ft or 242.32 m); minimum, 1,058,400 acre-ft (1,310 hm³) June 20 (elevation, 790.9 ft or 241.07 m). Extremes for period of record: Maximum contents, 1,200,600 acre-ft (1,480 hm³) June 22, 1972 (elevation, 797.6 ft or 243.11 m); minimum (after first filling to minimum power pool), 995,400 acre-ft (1,230 hm³) Jan. 23, 1970 (elevation, 787.6 ft or 240.06 m).

Reservoir is formed by concrete dam. Two ungated spillways, one near each end of dam, with crests at elevation 795 ft (242.3 m) are each 105 ft (32.0 m) long. Initial filling began in September 1963 during construction; water in reservoir first reached minimum power pool (elevation, 787 ft or 239.9 m) in May 1965. Total capacity at maximum pool elevation (811 ft or 247.2 m) is 1,517,000 acre-ft (1,870 hm³), of which 375,000 acre-ft (462 hm³) is above the spillway crest; 157,800 acre-ft (195 hm³) is normally used for power between elevation 787 ft or 239.9 m (minimum power pool) and the spillway crest. Capacity at invert of lowest penstock (elevation, 601 ft or 183.2 m) is 100 acre-ft (0.123 hm³). Figures given herein represent total contents. Reservoir is part of the Smith Mountain Combination Project (pumped storage) which is used for hydroelectric power, flood-control, low-water regulation for pollution abatement and water supply, water releases for downstream fish spawning, and recreation. Records of water-surface elevations furnished by Appalachian Power Company. Change in contents based on volume table furnished by the power company.

02059400 LEESVILLE LAKE.--Lat 37°05'35", long 79°24'09", Campbell County, at Leesville Dam on Roanoke (Staunton) River, 2.0 mi (3.2 km) south of Leesville, 3.5 mi (5.6 km) upstream from Goose Creek, and at mile 296. Drainage area, 1,505 mi² (3,898 km²). Period of record, September 1962 to current year. Gage, water-stage recorder. Datum of gage is mean sea level. Prior to June 6, 1963, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 96,570 acre-ft (119 hm³) June 20 (elevation, 613.5 ft or 186.99 m); minimum, 56,970 acre-ft (70.5 hm³) many days in November, December, February, and July (elevation, 599.9 ft or 182.85 m). Extremes for period of record: Maximum contents, 98,180 acre-ft (121 hm³) Feb. 1, 1965 (elevation, 614.0 ft or 187.15 m); minimum (after first filling to minimum power pool), 39,880 acre-ft (49.2 hm³) Mar. 19, 1963 (elevation, 592.0 ft or 180.44 m).

Reservoir is formed by concrete dam. Spillway, with crest at elevation 578.0 ft (176.17 m), is equipped with 4 radial gates 35 ft (11 m) high by 50 ft (15 m) wide. Storage began on Sept. 29, 1962, during construction, and water in reservoir first reached minimum power pool (elevation, 600.0 ft or 182.88 m) on Mar. 5, 1963. Total capacity at maximum pool elevation (613 ft or 186.8 m) is 94,960 acre-ft (117 hm³), of which 75,960 acre-ft (93.7 hm³) is above the spillway crest; 38,200 acre-ft (47.1 hm³) is normally used for power between elevations 600.0 ft or 182.88 m (minimum power pool) and the spillway crest. Capacity at invert of lowest penstock (elevation, 579.75 ft or 176.708 m) is 21,010 acre-ft (25.9 hm³). Figures given herein represent total contents. Reservoir is part of the Smith Mountain Combination Project (see Smith Mountain Lake above). Records of water-surface elevations furnished by Appalachian Power Company. Change in contents based on volume table furnished by the power company.

02067800; 02067820 TALBOTT AND TOWNES RESERVOIRS.--On Dan River. The two reservoirs are operated as a unit for storage of water for Pinnacles hydroelectric plant. Talbott Dam, drainage area, 20.2 mi² (52.3 km²) is at lat 36°40'39", long 80°23'52", Patrick County, 4.5 mi (7.2 km) northeast of Kibler. Townes Dam, drainage area, 32.9 mi² (85.2 km²) is at lat 36°41'10", long 80°25'50", Patrick County, about 4 mi (6 km) north of Kibler. Period of record, February 1939 to December 1945, and January 1948 to September 1960 (published in WSP 1723), and October 1960 to current year; records published are combined monthend contents of the two reservoirs.

Total capacity of Talbott Reservoir, 8,035 acre-ft (9.91 hm³), and Townes Reservoir, 1,377 acre-ft (1.70 hm³). Storage began in Talbott Reservoir on Feb. 13, 1939, and in Townes Reservoir several months earlier. Records furnished by city of Danville.

02071900 PHILPOTT LAKE.--Lat 36°46'52", long 80°01'40", Henry County, at Philpott Dam on Smith River, 1.5 mi (2.4 km) west of Philpott, 12.0 mi (19.3 km) upstream from Reed Creek, and at mile 44.3. Drainage area, 216 mi² (559 km²). Period of record, August 1950 to current year. Gage, water-stage recorder. Datum of gage is mean sea level. Extremes for current year: Maximum contents, 171,060 acre-ft (211 hm³) Apr. 8 (elevation, 976.45 ft or 297.622 m); minimum, 155,050 acre-ft (191 hm³) Oct. 26 (elevation, 970.87 ft or 295.921 m). Extremes for period of record: Maximum contents, 191,700 acre-ft (236 hm³) June 22, 1972 (elevation, 983.06 ft or 299.637 m); minimum (after first filling to rule curve), 64,540 acre-ft (79.6 hm³) Sept. 20, 1950 (elevation, 927.59 ft or 282.729 m).

Reservoir is formed by concrete dam. Spillway, with crest at elevation 985 ft (300.2 m), is ungated and 130 ft (40 m) long. Storage began in August 1950 during construction; initial filling started in December 1951; water in reservoir first reached rule-curve elevation in July 1953. Total capacity at maximum flood-control pool elevation (998 ft or 304.2 m) is 246,400 acre-ft (304 hm³), of which 48,300 acre-ft (59.6 hm³) is above the spillway crest, 34,100 acre-ft (42.0 hm³) is controlled flood storage between elevations 974 ft or 296.9 m (maximum power pool) and 985 ft (300.2 m), 110,000 acre-ft (136 hm³) is available for power between elevations 920 ft or 280.4 m (minimum power pool) and 974 ft (296.9 m), and 54,000 acre-ft (66.6 hm³) is inactive and dead storage below elevation 920 ft (280.4 m). Usable capacity is 144,100 acre-ft (178 hm³) between elevations 920 ft (280.4 m) and 985 ft (300.2 m). Figures given herein represent total contents. Reservoir is used for flood control, hydroelectric power, low-water regulation for pollution abatement and industrial water supply, and recreation. Records furnished by Corps of Engineers.

[illegible] JOHN H. KERR RESERVOIR.--Lat 36°[illegible], long 78°[illegible], Mecklenburg County, at John H. Kerr Dam on Roanoke River, 2.7 mi (4.3 km) upstream from Allen Creek, 6.7 mi (10.8 km) southeast of Boydton, 10 mi (16 km) upstream from the Virginia-North Carolina State line, and at mile 178.7. Drainage area, 7,800 mi² (20,200 km²), approximately. Period of record, July 1950 to current year. Gage, water-stage recorder. Datum of gage is mean sea level. Extremes for current year: Maximum contents, [illegible] acre-ft ([illegible] hm³) Apr. [illegible] (elevation, [illegible] ft or [illegible] m); minimum, [illegible] acre-ft ([illegible] hm³) Dec. [illegible] (elevation, [illegible] ft or [illegible] m). Extremes for period of record: Maximum contents, [illegible] acre-ft ([illegible] hm³) June [illegible], 1972 (elevation, [illegible] ft or [illegible] m); minimum (after first filling to rule curve), [illegible] acre-ft ([illegible] hm³) Feb. [illegible], [illegible] (elevation, [illegible] ft or [illegible] m).

RESERVOIRS IN ROANOKE RIVER BASIN, VA.--Continued

02079490 JOHN H. KERR RESERVOIR.--Continued

Reservoir is formed by concrete dam with earth embankments. Spillway, with crest at elevation 288.0 ft (87.78 m), is equipped with 22 radial gates 32 ft (9.8 m) high by 42 ft (13 m) wide. Storage began in September 1950 during construction; initial filling started June 30, 1952; water in reservoir first reached rule-curve elevation in March 1953. Total capacity at top of gates (elevation, 320 ft or 97.5 m) is 2,750,300 acre-ft (3,390 hm^3) of which 1,278,000 acre-ft (1,580 hm^3) is controlled flood storage between elevations 300 ft or 91.4 m (top of power pool) and 320 ft (97.5 m), 720,900 acre-ft (889 hm^3) between elevations 281.2 ft or 85.71 m (bottom of power pool) and 300 ft (91.4 m) is available for power, and 751,400 acre-ft (926 hm^3) below elevation 281.2 ft (85.71 m) is inactive and dead storage. Figures given herein represent total contents. Reservoir is used for flood control, hydroelectric power, low-water regulation for navigation and pollution abatement, release of water for downstream fish spawning, and recreation. Records furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	02057400 Smith Mountain Lake			02059400 Leesville Lake		
Sept. 30	793.0	1,101,200	-	604.5	69,260	-
Oct. 31	792.7	1,095,100	-6,100	610.8	87,880	+18,620
Nov. 30	791.8	1,076,700	-18,400	612.8	94,320	+6,440
Dec. 31	794.1	1,123,600	+46,900	604.1	68,190	-26,130
CAL YR 1973	-	-	0	-	-	-8,580
Jan. 31	793.2	1,105,300	-18,300	609.2	82,950	+14,760
Feb. 28	792.5	1,091,000	-14,300	611.4	89,810	+6,860
Mar. 31	794.6	1,133,800	+42,800	601.8	62,020	-27,790
Apr. 30	794.3	1,127,700	-6,100	604.5	69,260	+7,240
May 31	792.4	1,089,000	-38,700	612.0	91,740	+22,480
June 30	793.1	1,103,200	+14,200	600.7	59,080	-32,660
July 31	792.1	1,082,800	-20,400	606.2	74,130	+15,050
Aug. 31	792.2	1,084,900	+2,100	607.8	78,830	+4,700
Sept. 30	793.6	1,113,400	+28,500	603.9	67,650	-11,180
WTR YR 1974	-	-	+12,200	-	-	-1,610

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	02067800; 02067820 Talbott and Townes Reservoirs ♦			02071900 Philpott Lake		
Sept. 30	-	8,200	-	971.94	158,030	-
Oct. 31	-	8,100	-100	971.05	155,540	-2,490
Nov. 30	-	8,000	-100	971.19	155,930	+390
Dec. 31	-	9,100	+1,100	975.33	167,190	+11,260
CAL YR 1973	-	-	+700	-	-	+2,350
Jan. 31	-	8,200	-900	973.65	162,950	-4,240
Feb. 28	-	8,400	+200	973.33	161,990	-960
Mar. 31	-	7,700	-700	974.29	164,810	+2,820
Apr. 30	-	8,000	+300	973.80	163,400	-1,410
May 31	-	7,800	-200	973.45	162,350	-1,050
June 30	-	8,300	+500	974.27	164,760	-2,410
July 31	-	7,700	-600	972.98	160,940	-3,820
Aug. 31	-	7,200	-500	971.42	156,580	-4,360
Sept. 30	-	8,400	+1,200	971.92	157,980	+1,400
WTR YR 1974	-	-	+200	-	-	-50

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	02079490 John H. Kerr Reservoir		
Sept. 30	297.03	1,332,300	-
Oct. 31	297.89	1,371,800	+39,500
Nov. 30	296.32	1,300,500	-71,300
Dec. 31	300.55	1,499,500	+199,000
CAL YR 1973	-	-	-49,700
Jan. 31	301.90	1,567,400	+67,900
Feb. 28	298.12	1,382,500	-184,900
Mar. 31	302.28	1,587,100	+204,600
Apr. 30	301.86	1,565,400	-21,700
May 31	300.89	1,516,400	-49,000
June 30	299.76	1,460,700	-55,700
July 31	296.76	1,320,200	-140,500
Aug. 31	297.08	1,334,600	+14,400
Sept. 30	299.74	1,459,700	+125,100
WTR YR 1974	-	-	+127,400

♦ Combined contents.

03161000 SOUTH FORK NEW RIVER NEAR JEFFERSON, N. C.

LOCATION.--Lat 36°23'40", long 81°24'27", Ashe County, on right bank 600 ft (183 m) upstream from bridge on State Highways 16 and 88, 0.2 mi (0.3 km) downstream from Bear Creek, and 4 mi (6.4 km) southeast of Jefferson.

DRAINAGE AREA.--207 mi^2 (536 km^2).

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 2,657.04 ft (809.866 m) above mean sea level, unadjusted. Prior to Oct. 14, 1934, nonrecording gage on bridge 400 ft (122 m) downstream at same datum. Oct. 14, 1934, to Mar. 25, 1935, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--50 years, 419 ft^3/s or 11.87 m^3/s (27.49 in/yr or 698 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,910 ft^3/s (167.4 m^3/s) Apr. 4 (gage height, 7.63 ft or 2.326 m); minimum, 230 ft^3/s (6.51 m^3/s) Oct. 28 (gage height, 2.08 ft or 0.634 m).

Period of record: Maximum discharge, 52,800 ft^3/s (1,500 m^3/s) Aug. 14, 1940 (gage height, 22.50 ft or 6.858 m), from rating curve extended above 5,100 ft^3/s (144 m^3/s) on basis of slope-area measurement of peak flow; minimum, 52 ft^3/s (1.47 m^3/s) Dec. 24, 1943, result of freezeup; minimum daily, 65 ft^3/s (1.84 m^3/s) Sept. 9, 1925.

Flood of July 15, 1916, reached a stage of 18.0 ft (5.49 m), from floodmarks, witnessed by local resident (discharge, 35,200 ft^3/s or 997 m^3/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1275: 1925-26(M), 1928-30(M), 1931-32, 1933-35(M), 1941-42(m), 1944(m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	341	333	397	1,180	506	591	722	427	751	614	356	344
2	733	313	360	904	531	570	660	426	607	548	415	345
3	537	278	337	799	800	533	638	585	502	540	1,050	459
4	369	264	325	748	678	509	3,320	545	445	591	1,630	732
5	334	277	763	718	586	489	3,430	490	412	986	914	441
6	301	355	977	655	555	510	1,520	599	718	1,090	900	971
7	286	293	591	653	574	502	1,140	500	1,900	757	795	2,070
8	291	273	494	605	598	476	959	451	1,170	649	808	921
9	386	266	507	725	604	455	955	464	899	692	973	700
10	465	257	481	830	526	440	810	468	908	742	679	650
11	360	245	420	686	509	433	734	444	714	587	619	908
12	316	247	376	704	483	453	692	997	599	563	579	704
13	298	248	400	613	469	684	782	1,180	548	512	525	889
14	288	246	494	572	506	541	793	692	538	481	479	785
15	260	240	452	559	499	475	774	591	550	454	453	644
16	269	249	411	537	496	462	679	595	609	434	433	579
17	261	249	410	509	516	503	646	526	617	428	441	539
18	254	243	381	484	508	460	627	485	484	436	490	563
19	251	239	377	468	548	463	594	480	446	557	982	493
20	250	236	527	461	628	718	567	479	447	453	552	455
21	248	385	1,370	717	581	839	548	469	464	421	476	438
22	247	879	843	719	1,580	975	535	458	562	408	429	428
23	249	459	634	563	1,560	703	565	523	502	395	570	406
24	248	364	546	533	937	621	545	554	437	404	476	390
25	244	326	503	578	770	565	502	438	419	409	410	388
26	246	326	1,340	579	680	538	485	417	399	486	417	379
27	239	326	2,720	635	633	509	470	541	441	451	383	372
28	240	486	1,320	612	597	490	458	476	2,090	470	379	701
29	320	709	934	629	------	530	448	417	1,040	416	433	577
30	341	474	799	570	------	824	436	464	729	417	382	41
31	297	------	766	535	------	878	------	493	------	391	355	------
TOTAL	9,789	10,085	21,255	20,080	18,458	17,739	26,034	16,674	20,947	16,782	18,783	18,68
MEAN	316	336	686	648	659	572	868	538	698	541	606	62
MAX	733	879	2,720	1,180	1,580	975	3,430	1,180	2,090	1,090	1,630	2,07
MIN	239	236	325	461	469	433	436	417	399	391	355	344
CFSM	1.53	1.62	3.31	3.13	3.18	2.76	4.19	2.60	3.37	2.61	2.93	3.0
IN	1.76	1.81	3.82	3.61	3.32	3.19	4.68	3.00	3.76	3.02	3.38	3.3

CAL YR 1973 TOTAL 221,420 MEAN 607 MAX 8,700 MIN 236 CFSM 2.93 IN 39.79
WTR YR 1974 TOTAL 215,312 MEAN 590 MAX 3,430 MIN 236 CFSM 2.85 IN 38.69

PEAK DISCHARGE (BASE, 2,600 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0530	5.93	3,320	6-28	1030	5.49	2,790
2-22	2230	5.54	2,850	9- 7	0600	5.57	2,880
4- 4	1800	7.63	5,910				

03164000 NEW RIVER NEAR GALAX, VA.

LOCATION.--Lat 36°38'50", long 80°58'45", Grayson County, on left bank at upstream side of bridge on U.S. Highway 58, 500 ft (152 m) downstream from Meadow Creek, 1.2 mi (1.9 km) southwest of Old Town, 3.1 mi (5.0 km) southwest of Galax, and 3.6 mi (5.8 km) downstream from Elk Creek.

DRAINAGE AREA.--1,131 mi² (2,929 km²).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 2,208.04 ft (673.011 m) above mean sea level.

AVERAGE DISCHARGE.--45 years, 1,856 ft³/s or 52.56 m³/s (22.29 in/yr or 566 mm/yr).

EXTREMES.--Current year: Maximum discharge, 27,200 ft³/s (770 m³/s) Apr. 5 (gage height, 7.86 ft or 2.396 m); minimum, 858 ft³/s (24.3 m³/s) Oct. 27, 28 (gage height, 1.16 ft or 0.354 m).

Period of record: Maximum discharge, 141,000 ft³/s (3,990 m³/s) Aug. 14, 1940 (gage height, 25.7 ft or 7.83 m, from floodmark), from rating curve extended above 32,000 ft³/s (906 m³/s) on basis of computation of peak flow over dam at Fries 6 mi (10 km) downstream and slope-area measurement of peak flow; minimum, 193 ft³/s (5.47 m³/s) Jan. 9, 1956 (gage height, 0.52 ft or 0.158 m), result of freezeup; minimum daily, 265 ft³/s (7.50 m³/s) Sept. 19, 1954.

REMARKS.--Records good. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 758: Drainage area, 1933(M). WSP 893: 1930(M), 1935(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,340	1,490	1,970	8,570	2,400	2,510	3,690	1,750	3,080	3,170	1,250	1,160
2	3,420	1,520	1,660	6,940	2,290	2,410	3,400	1,760	3,580	2,520	1,170	1,120
3	2,890	1,310	1,470	5,010	3,170	2,280	3,200	2,020	2,630	2,170	1,480	1,350
4	1,920	1,190	1,370	4,440	3,960	2,130	11,600	2,460	2,240	2,030	3,440	1,670
5	1,500	1,130	2,360	4,500	3,330	2,030	20,900	2,080	2,010	2,300	3,230	1,660
6	1,300	1,310	4,610	3,900	2,790	2,000	10,200	2,360	1,900	2,940	2,510	2,080
7	1,180	1,280	2,990	3,450	2,610	2,080	6,620	2,270	4,540	2,890	2,220	6,050
8	1,150	1,180	2,230	3,170	2,590	2,000	4,730	2,020	4,640	2,350	1,990	3,640
9	1,450	1,120	2,310	3,310	2,660	1,880	4,370	2,080	3,550	2,440	2,460	2,320
10	1,860	1,080	2,290	5,120	2,360	1,810	3,800	2,120	3,790	2,420	2,350	2,330
11	1,570	1,010	1,940	4,280	2,230	1,820	3,400	2,060	3,060	2,180	1,940	3,440
12	1,340	979	1,680	4,210	2,090	1,900	3,190	3,450	2,370	1,910	1,820	2,650
13	1,210	979	1,660	3,620	2,010	2,830	3,200	7,440	2,110	1,750	1,740	3,330
14	1,130	965	2,130	3,170	2,960	2,950	3,350	4,240	2,230	1,610	1,560	3,380
15	1,120	951	2,210	2,840	3,540	2,420	3,120	3,230	1,960	1,520	1,430	2,410
16	1,060	937	1,970	2,550	3,020	2,200	3,060	2,730	2,020	1,480	1,410	2,010
17	1,010	965	1,860	2,310	2,860	2,320	2,810	2,470	2,310	1,430	1,540	1,810
18	965	924	1,590	2,130	2,740	2,170	2,640	2,240	1,950	1,400	1,480	1,840
19	937	910	1,680	2,010	2,860	2,070	2,430	2,120	1,690	1,470	1,740	1,700
20	937	897	2,070	1,940	3,390	2,890	2,280	2,180	1,590	1,530	2,220	1,530
21	924	1,010	6,740	2,460	3,300	5,070	2,180	2,070	1,810	1,400	1,580	1,440
22	910	2,110	5,160	2,890	5,590	6,880	2,120	2,000	1,980	1,330	1,410	1,580
23	924	2,090	3,360	2,420	8,130	4,620	2,190	2,360	2,600	1,290	1,350	1,480
24	910	1,500	2,760	2,230	5,180	3,440	2,260	3,150	1,970	1,320	1,460	1,350
25	897	1,330	2,400	2,790	3,830	2,870	2,060	2,420	1,770	1,580	1,340	1,310
26	884	1,300	3,930	2,910	3,170	2,520	1,950	2,080	1,660	1,880	1,250	1,290
27	871	1,390	10,300	3,330	2,840	2,330	1,900	2,340	1,640	1,850	1,200	1,260
28	884	2,030	7,060	3,200	2,640	2,180	1,870	2,280	6,870	1,900	1,180	1,780
29	1,120	3,650	4,280	3,170	------	2,230	1,810	1,970	9,130	1,570	1,320	2,170
30	1,300	2,640	3,540	2,840	------	3,430	1,790	1,950	4,570	1,380	1,240	1,620
31	1,250	------	3,590	2,550	------	4,120	------	2,460	------	1,400	1,200	------
TOTAL	40,163	41,177	95,170	108,260	90,540	84,390	122,120	78,160	87,250	58,410	53,510	62,760
MEAN	1,296	1,373	3,070	3,492	3,234	2,722	4,071	2,521	2,908	1,884	1,726	2,092
MAX	3,420	3,650	10,300	8,570	8,130	6,880	20,900	7,440	9,130	3,170	3,440	6,050
MIN	871	897	1,370	1,940	2,010	1,810	1,790	1,750	1,590	1,290	1,170	1,120
CFSM	1.15	1.21	2.71	3.09	2.86	2.41	3.60	2.23	2.57	1.67	1.53	1.85
IN	1.32	1.35	3.13	3.56	2.98	2.78	4.02	2.57	2.87	1.92	1.76	2.06

CAL YR 1973 TOTAL 968,461 MEAN 2,653 MAX 30,600 MIN 871 CFSM 2.35 IN 31.85
WTR YR 1974 TOTAL 921,910 MEAN 2,526 MAX 20,900 MIN 871 CFSM 2.23 IN 30.32

PEAK DISCHARGE (BASE, 9,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0730	4.47	11,100	5-13	0300	3.97	9,010
1- 1	1300	4.14	9,730	6-28	2300	4.91	13,100
4- 5	0030	7.86	27,200				

03165000 CHESTNUT CREEK AT GALAX, VA.

LOCATION.--Lat 36°38'45", long 80°55'10", Galax City, on right bank 200 ft (61 m) upstream from bridge on State Highway 89 and 1.7 mi (2.7 km) downstream from Wards Mill Branch.

DRAINAGE AREA.--39 mi^2 (100 km^2), approximately.

PERIOD OF RECORD.--September 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,344.17 ft (714.503 m) above mean sea level. Prior to June 25, 1948, nonrecording gage, and June 25, 1948, to May 28, 1953, water-stage recorder, at site 200 ft (61 m) upstream at datum 0.86 ft (0.262 m) higher.

AVERAGE DISCHARGE.--30 years, 66.0 ft^3/s or 1.869 m^3/s (22.98 in/yr or 584 mm/yr).

EXTREMES.--Current year: Maximum discharge, 1,060 ft^3/s (30.0 m^3/s) Apr. 4 (gage height, 5.20 ft or 1.585 m); minimum, 35 ft^3/s (0.99 m^3/s) Nov. 11, 17, 18, 20 (gage height, 0.51 ft or 0.155 m).

Period of record: Maximum discharge, 6,980 ft^3/s (198 m^3/s) Oct. 17, 1947 (gage height, 14.4 ft or 4.39 m, from floodmark, site and datum then in use), from rating curve extended above 2,200 ft^3/s (62.3 m^3/s) on basis of two slope-area and one contracted-opening measurements at gage heights 9.5 ft (2.90 m), 14.4 ft (4.39 m), and 17.4 ft (5.30 m), respectively, site and datum then in use; minimum, 13 ft^3/s (0.37 m^3/s) Jan. 5, 1956, result of freezeup; minimum daily, 14 ft^3/s (0.40 m^3/s) Sept. 2, 1953, Sept. 18, 1954; minimum gage height, 0.51 ft (0.155 m) Dec. 25, 1969, Jan. 31, 1971, Sept. 6, 7, 8, 9, 13, Nov. 11, 17, 18, 20, 1973.

Flood of Aug. 14, 1940, reached a stage of 17.4 ft (5.30 m), at site and datum used 1944-53 (discharge, 11,000 ft^3/s or 312 m^3/s by contracted-opening measurement).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1385: 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	53	43	129	73	78	80	60	71	62	46	40
2	230	42	41	101	78	74	82	66	209	58	45	40
3	91	40	40	98	85	71	74	85	91	63	80	58
4	61	39	40	103	75	68	603	66	77	58	92	59
5	52	40	211	94	68	68	245	73	70	89	71	44
6	47	39	92	87	71	70	143	78	71	71	67	157
7	45	38	65	85	74	71	118	64	190	80	59	119
8	47	38	58	77	88	66	113	62	106	60	85	77
9	49	38	88	103	77	64	109	106	101	58	77	62
10	46	36	72	89	70	63	95	78	133	55	63	63
11	44	36	61	89	68	70	89	71	101	53	60	135
12	42	37	57	80	66	77	87	301	82	52	60	70
13	41	37	64	73	66	88	94	136	75	50	58	87
14	41	37	76	71	95	68	88	98	92	47	52	62
15	39	36	66	73	75	64	84	84	82	47	49	55
16	39	37	63	70	77	67	78	75	87	59	49	53
17	37	35	57	67	80	66	78	73	77	47	50	57
18	37	35	66	64	84	62	77	71	68	47	46	58
19	37	36	54	64	92	63	74	84	64	47	55	50
20	37	35	224	63	87	82	73	95	62	46	54	47
21	37	83	237	141	77	116	71	75	62	46	46	47
22	37	65	113	92	347	88	71	73	71	44	44	46
23	37	46	89	80	139	75	81	138	62	44	42	43
24	37	43	83	81	107	70	70	87	59	49	42	43
25	37	42	83	124	92	66	68	74	57	49	41	43
26	36	41	490	103	84	64	67	71	57	223	42	42
27	36	43	239	104	80	63	66	91	78	77	39	42
28	42	74	133	95	78	63	64	70	114	70	38	101
29	66	56	109	91	------	101	63	65	88	55	51	55
30	44	46	101	81	------	138	62	70	68	55	49	45
31	45	------	116	77	------	94	------	67	------	49	41	------
TOTAL	1,583	1,303	3,331	2,749	2,553	2,338	3,167	2,711	2,625	1,910	1,693	1,900
MEAN	51.1	43.4	107	88.7	91.2	75.4	106	87.5	87.5	61.6	54.6	63.3
MAX	230	83	490	141	347	138	603	301	209	223	92	157
MIN	36	35	40	63	66	62	62	60	57	44	38	40
CFSM	1.31	1.11	2.74	2.27	2.34	1.93	2.72	2.24	2.24	1.58	1.40	1.62
IN	1.51	1.24	3.18	2.62	2.44	2.23	3.02	2.59	2.50	1.82	1.61	1.81

CAL YR 1973 TOTAL 32,663 MEAN 89.5 MAX 1,500 MIN 35 CFSM 2.29 IN 31.16
WTR YR 1974 TOTAL 27,863 MEAN 76.3 MAX 603 MIN 35 CFSM 1.96 IN 26.58

PEAK DISCHARGE (BASE, 700 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	1830	4.48	870	4- 4	1430	5.20	1,060
2-22	0945	4.24	810	5-12	1415	4.38	845

03165500 NEW RIVER AT IVANHOE, VA.

LOCATION.--Lat 36°50'05", long 80°57'10", Wythe County, on left bank at Ivanhoe, 2.1 mi (3.4 km) downstream from Big Branch, and 2.3 mi (3.7 km) upstream from Cripple Creek.

DRAINAGE AREA.--1,340 mi² (3,471 km²).

PERIOD OF RECORD.--August to December 1927, October 1929 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected in vicinity, October 1916 to July 1943, are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 1,943.09 ft (592.254 m) above mean sea level.

AVERAGE DISCHARGE.--45 years, 2,095 ft³/s or 59.33 m³/s (21.23 in/yr or 539 mm/yr).

EXTREMES.--Current year: Maximum discharge, 25,800 ft³/s (731 m³/s) Apr. 5 (gage height, 13.18 ft or 4.017 m); minimum, 135 ft³/s (3.82 m³/s) Oct. 8 (gage height, 0.95 ft or 0.290 m); minimum daily, 830 ft³/s (23.5 m³/s) Sept. 27.

Period of record: Maximum discharge, 155,000 ft³/s (4,390 m³/s) Aug. 14, 1940 (gage height, 38.1 ft or 11.61 m, from floodmarks), from rating curve extended above 32,000 ft³/s (906 m³/s) on basis of flood records for other stations on New River; minimum, 44 ft³/s (1.25 m³/s) Oct. 11, 1965 (gage height, 0.59 ft or 0.180 m); minimum daily, 184 ft³/s (5.21 m³/s) July 28, 1930.

Flood in July 1916 reached a stage of 34.8 ft (10.61 m), from floodmark (discharge, 132,000 ft³/s or 3,740 m³/s, from rating curve extended as explained above). Flood in September 1878 was about 5 ft (1.5 m) lower than flood in July 1916 and was the highest between 1840 and 1916.

REMARKS.--Records good. Large diurnal fluctuation and some regulation caused by powerplants at Buck, 2.8 mi (4.5 km) above station, and at Byllesby, 5.5 mi (8.8 km) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 783: Drainage area, 1933(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,530	1,630	2,470	8,200	2,840	3,000	4,360	2,090	3,010	4,050	1,340	1,380
2	4,070	1,760	1,920	7,440	2,450	2,570	4,210	2,040	4,060	2,900	1,340	1,270
3	3,720	1,590	1,840	5,410	3,200	2,590	3,730	2,060	3,370	2,560	1,230	1,920
4	2,550	1,330	1,630	4,950	4,520	2,680	9,390	2,460	2,600	1,990	3,200	1,980
5	1,490	1,430	2,230	4,970	4,170	2,400	22,500	2,630	2,210	2,840	4,390	2,080
6	1,440	1,250	5,290	4,490	3,450	2,470	11,200	2,640	2,110	3,030	2,700	2,060
7	1,380	1,620	3,690	4,030	3,210	2,410	7,350	2,620	3,500	3,710	2,870	5,570
8	1,290	1,420	2,640	3,960	3,120	2,420	5,700	2,390	5,490	2,960	2,430	4,920
9	1,550	1,300	2,690	3,690	2,830	1,760	5,380	2,240	3,950	2,750	2,670	3,220
10	2,240	1,240	2,850	5,020	2,710	2,340	4,050	2,680	4,070	2,740	2,430	2,680
11	1,770	1,130	2,270	5,030	2,930	2,320	4,090	2,080	3,620	2,540	2,420	4,000
12	1,600	1,250	2,090	4,450	2,480	2,280	3,370	3,560	2,720	2,090	2,310	3,520
13	1,390	1,070	2,190	4,330	2,360	3,140	3,290	7,830	2,630	1,910	2,130	3,510
14	1,350	1,160	2,330	3,960	3,070	3,280	3,910	5,380	2,240	1,750	1,920	4,370
15	1,210	1,110	2,760	3,210	4,180	3,070	3,590	3,940	2,200	1,840	1,690	3,000
16	1,310	1,100	2,370	2,790	3,910	2,480	3,270	3,020	2,250	1,580	1,490	2,950
17	1,090	1,110	2,220	2,940	3,350	2,550	3,040	2,900	2,940	1,620	1,250	2,130
18	1,190	1,100	1,650	2,630	3,320	2,860	2,950	2,310	2,260	1,690	1,850	2,240
19	1,000	1,020	1,920	2,190	3,500	2,500	2,780	2,250	2,060	1,550	2,170	2,150
20	1,070	1,040	2,790	2,200	3,820	2,670	2,550	2,740	1,790	1,390	2,560	1,620
21	1,040	1,050	7,690	3,000	4,090	4,840	2,470	2,440	2,000	1,690	1,870	1,260
22	1,140	2,030	6,120	3,800	5,670	7,110	2,610	2,150	1,940	2,120	1,680	1,680
23	1,030	2,700	3,620	2,770	8,290	5,390	2,530	2,880	2,950	1,410	1,580	2,190
24	1,040	1,970	3,250	2,940	6,130	4,270	3,040	3,290	2,430	1,590	1,160	1,360
25	1,030	1,380	2,670	3,070	4,500	3,640	2,080	2,450	2,050	1,430	1,660	1,150
26	1,070	1,560	5,270	3,590	3,920	3,040	2,220	2,330	1,840	2,700	1,790	846
27	980	1,080	10,800	3,850	3,170	2,830	2,050	2,770	1,910	1,580	1,460	830
28	986	1,890	7,590	4,000	3,170	2,650	2,180	2,770	5,330	2,090	1,380	1,170
29	1,370	3,940	5,050	3,390	------	2,590	2,420	2,290	10,300	2,400	1,260	1,950
30	1,500	3,260	3,700	3,730	------	3,510	2,000	2,160	5,320	1,470	1,340	1,570
31	1,430	------	4,410	2,940	------	4,740	------	2,450	------	1,450	1,290	------
TOTAL	46,846	47,160	110,010	122,970	104,360	96,400	134,310	87,840	95,140	67,420	60,850	70,576
MEAN	1,511	1,572	3,549	3,967	3,727	3,110	4,477	2,834	3,171	2,175	1,963	2,353
MAX	4,070	3,940	10,800	8,200	8,290	7,110	22,500	7,830	10,300	4,050	4,390	5,670
MIN	980	1,020	1,630	2,190	2,360	1,760	2,000	2,040	1,790	1,390	1,160	830
CFSM	1.13	1.17	2.65	2.96	2.78	2.32	3.34	2.11	2.37	1.62	1.46	1.76
IN	1.30	1.31	3.05	3.41	2.90	2.68	3.73	2.44	2.64	1.87	1.69	1.96

CAL YR 1973 TOTAL 1,095,296 MEAN 2,973 MAX 31,400 MIN 492 CFSM 2.22 IN 30.13
WTR YR 1974 TOTAL 1,043,882 MEAN 2,860 MAX 22,500 MIN 830 CFSM 2.13 IN 28.98

PEAK DISCHARGE (BASE, 13,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
4- 5	0830	13.18	25,800	6-29	0015	9.07	15,000

03167000 REED CREEK AT GRAHAMS FORGE, VA.

LOCATION.--Lat 36°56'20", long 80°53'15", Wythe County, on right bank 35 ft (11 m) upstream from highway bridge at Grahams Forge, 2.2 mi (3.5 km) downstream from Glade Creek, and 7.3 mi (11.7 km) upstream from mouth.

DRAINAGE AREA.--247 mi² (640 km²).

PERIOD OF RECORD.--July 1908 to September 1916, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Staff gage read twice daily. Datum of gage is 1,924.65 ft (586.633 m) above mean sea level. Prior to Oct. 1, 1916, nonrecording gage at same site at datum 0.68 ft (0.207 m) lower. Feb. 3, 1927, to Oct. 28, 1934, nonrecording gage, and Oct. 29, 1934, to June 10, 1974, water-stage recorder, at present site and datum.

AVERAGE DISCHARGE.--55 years, 265 ft³/s or 7.505 m³/s (14.57 in/yr or 370 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,360 ft³/s (95.2 m³/s) May 13 (gage height, 4.76 ft or 1.451 m); minimum, 80 ft³/s (2.27 m³/s) Oct. 27 (gage height, 1.45 ft or 0.442 m); minimum daily, 86 ft³/s (2.44 m³/s) Oct. 27.

Period of record: Maximum discharge, 17,500 ft³/s (496 m³/s) July 16, 1916 (gage height, 11.4 ft or 3.47 m, present datum, from floodmarks), from rating curve extended above 7,600 ft³/s (215 m³/s) on basis of velocity-area study; minimum observed, about 5 ft³/s (about 0.14 m³/s) Dec. 22, 1909 (gage height, 0.49 ft or 0.149 m, present datum), result of freezeup; minimum daily, 22 ft³/s (0.62 m³/s) Jan. 30, 1934.

REMARKS.--Records good. Occasional diurnal fluctuation at low flow caused by mills above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1235: 1912-13, 1915-16. WSP 1275: 1911, 1927-28(M), 1930-34(M). WSP 1705: 1913(M), 1916(M), 1957 calendar year runoff. WSP 1725: 1915 calendar year runoff.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	153	230	2,280	427	382	567	199	222	316	111	90
2	222	168	191	1,360	427	351	533	203	227	252	100	110
3	178	136	168	980	651	325	462	223	217	211	120	128
4	137	122	154	1,280	948	305	1,120	217	201	190	130	131
5	122	128	227	1,220	686	287	2,200	212	186	182	128	108
6	111	149	576	830	547	282	1,120	282	173	270	122	128
7	104	141	342	668	486	297	786	303	173	250	119	170
8	105	129	253	551	451	305	630	267	192	231	116	160
9	127	121	280	567	404	299	593	298	173	235	114	147
10	130	114	327	873	351	287	509	355	166	225	110	134
11	119	108	258	903	332	288	448	307	160	220	110	131
12	109	105	223	1,260	311	369	409	957	147	214	105	131
13	103	103	211	849	311	1,950	389	1,900	141	190	105	125
14	100	101	320	650	355	1,090	364	702	138	170	105	130
15	98	100	421	547	448	700	350	473	166	156	100	130
16	95	100	337	476	427	554	322	372	200	150	100	131
17	92	101	289	415	422	529	302	309	182	150	110	122
18	90	99	231	370	432	459	300	274	166	147	120	122
19	90	97	224	338	586	422	278	255	138	134	131	108
20	91	95	224	316	1,080	563	266	235	134	130	150	106
21	89	102	1,050	371	869	1,140	253	223	131	125	131	105
22	89	131	936	428	1,040	1,950	245	212	150	125	120	110
23	88	150	545	407	1,230	988	257	238	140	119	115	106
24	87	133	418	389	822	722	255	250	131	125	110	97
25	88	126	350	497	651	568	240	209	138	125	105	97
26	87	123	464	745	517	482	231	193	134	119	106	95
27	86	183	1,440	1,030	450	432	224	199	196	150	97	103
28	89	522	774	776	414	393	217	192	1,250	140	92	110
29	111	577	524	662	------	374	209	178	1,100	125	92	105
30	115	320	712	553	------	436	204	186	620	119	97	95
31	129	------	861	484	------	522	------	222	------	111	95	------
TOTAL	3,394	4,737	13,560	23,075	16,075	18,050	14,283	10,645	7,492	5,408	3,466	3,565
MEAN	109	158	437	744	574	582	476	343	250	174	112	119
MAX	222	577	1,440	2,280	1,230	1,950	2,200	1,900	1,250	316	150	170
MIN	86	95	154	316	311	282	204	178	131	111	92	90
CFSM	.44	.64	1.77	3.01	2.32	2.36	1.93	1.39	1.01	.70	.45	.48
IN	.51	.71	2.04	3.48	2.42	2.72	2.15	1.60	1.13	.81	.52	.54

CAL YR 1973 TOTAL 129,583 MEAN 355 MAX 5,150 MIN 85 CFSM 1.44 IN 19.52
WTR YR 1974 TOTAL 123,748 MEAN 339 MAX 2,280 MIN 86 CFSM 1.37 IN 18.64

PEAK DISCHARGE (BASE, 2,300 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1- 1	1200	4.37	2,740	4- 5	0200	4.53	2,990
3-13	1230	4.36	2,730	5-13	0200	4.76	3,360
3-22	0330	4.33	2,680				

03167500 BIG REED ISLAND CREEK NEAR ALLISONIA, VA.

LOCATION.--Lat 36°53'20", long 80°43'40", Pulaski County, on left bank 700 ft (213 m) downstream from highway bridge, 3.5 mi (5.6 km) southeast of Allisonia, 4 mi (6 km) upstream from Little Reed Island Creek, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--278 mi^2 (720 km^2).

PERIOD OF RECORD.--August 1908 to September 1916, April 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,902.74 ft (579.955 m) above mean sea level. Prior to Sept. 30, 1916, nonrecording gage at site 4 mi (6 km) downstream at different datum.

AVERAGE DISCHARGE.--43 years, 395 ft^3/s or 11.19 m^3/s (19.30 in/yr or 490 mm/yr).

EXTREMES.--Current year: Maximum discharge, 7,730 ft^3/s (219 m^3/s) Dec. 26 (gage height, 8.75 ft or 2.667 m), from rating curve extended as explained below; minimum, 185 ft^3/s (5.24 m^3/s) Aug. 2, 29 (gage height, 2.20 ft or 0.671 m).

Period of record: Maximum discharge, 14,500 ft^3/s (411 m^3/s) Sept. 30, 1959 (gage height, 12.54 ft or 3.822 m), from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of slope-area measurement of peak flow; minimum, 63 ft^3/s (1.78 m^3/s) Jan. 20, 1971 (gage height, 1.63 ft or 0.497 m), result of freezeup; minimum daily, 84 ft^3/s (2.38 m^3/s) Sept. 17, 1956, Sept. 23-25, 1963.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1033: 1939(P), 1940, 1941-43(P). WSP 1305: 1912(M). WSP 1625: 1940, 1945(M), 1947, 1951, 1952(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	345	265	1,270	498	502	548	387	400	293	194	213
2	1,170	297	242	855	514	475	501	395	1,290	275	189	237
3	557	255	229	713	661	457	466	492	705	263	209	290
4	328	238	224	737	707	443	3,630	431	486	256	394	519
5	270	252	1,080	708	561	432	3,160	405	421	317	466	293
6	241	253	1,050	615	519	435	1,270	503	395	374	300	712
7	226	226	444	578	547	436	885	422	396	423	273	1,490
8	248	220	353	518	548	424	745	394	390	312	273	531
9	355	217	563	632	521	409	774	773	376	337	420	393
10	318	209	592	706	464	398	645	711	369	278	319	422
11	264	202	438	653	462	409	585	540	473	260	265	2,470
12	243	205	368	675	444	471	555	1,430	356	254	256	736
13	231	206	373	551	450	561	577	1,430	334	237	243	534
14	226	206	489	503	515	457	593	717	367	228	223	507
15	224	204	452	486	489	428	552	621	397	219	217	362
16	211	204	410	472	481	431	505	511	392	213	220	321
17	203	199	394	446	515	475	491	453	414	210	263	292
18	198	194	320	426	530	421	525	435	333	214	218	299
19	208	196	368	420	586	421	480	467	310	215	207	266
20	200	196	1,140	413	673	459	462	422	299	222	257	243
21	208	220	2,800	1,170	560	662	448	411	295	212	264	237
22	199	390	1,020	968	1,860	752	444	404	306	204	210	236
23	199	265	665	635	1,300	537	532	722	295	200	197	221
24	199	231	549	559	805	476	473	565	290	231	206	214
25	197	222	494	826	652	437	440	426	274	261	227	217
26	195	223	3,000	775	536	420	429	391	317	638	247	220
27	193	225	3,600	841	528	413	419	482	329	351	253	216
28	202	316	1,210	720	514	400	410	420	375	283	205	293
29	573	516	827	692	------	433	402	383	472	252	189	295
30	376	312	709	586	------	928	394	397	340	225	301	225
31	279	------	738	535	------	760	------	400	------	202	232	------
TOTAL	8,992	7,444	25,406	20,684	17,440	15,162	22,340	16,920	12,196	8,459	7,927	13,504
MEAN	290	248	820	667	623	489	745	546	407	273	256	450
MAX	1,170	516	3,600	1,270	1,860	928	3,630	1,430	1,290	638	466	2,470
MIN	193	194	224	413	444	398	394	383	274	200	189	213
CFSM	1.04	.89	2.95	2.40	2.24	1.76	2.68	1.96	1.46	.98	.92	1.62
IN	1.20	1.00	3.40	2.77	2.33	2.03	2.99	2.26	1.63	1.13	1.06	1.81

CAL YR 1973 TOTAL 189,811 MEAN 520 MAX 5,470 MIN 193 CFSM 1.87 IN 25.40
WTR YR 1974 TOTAL 176,474 MEAN 483 MAX 3,630 MIN 189 CFSM 1.74 IN 23.61

PEAK DISCHARGE (BASE, 3,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0230	6.17	3,890	4- 4	2030	8.32	7,080
12-26	2400	8.75	7,730	5-12	2030	6.20	3,930
2-22	1630	5.91	3,520	9-11	0630	6.96	5,040

03168000 NEW RIVER AT ALLISONIA, VA.

LOCATION.--Lat 36°56'15", long 80°44'45", Pulaski County, on left bank 0.2 mi (0.3 km) downstream from Big Reed Island Creek and 0.5 mi (0.8 km) upstream from Allisonia.

DRAINAGE AREA.--2,202 mi² (5,703 km²).

PERIOD OF RECORD.--September 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,848.36 ft (563.380 m) above mean sea level.

AVERAGE DISCHARGE.--45 years, 3,115 ft³/s or 88.22 m³/s (19.21 in/yr or 488 mm/yr).

EXTREMES.--Current year: Maximum discharge, 38,900 ft³/s (1,100 m³/s) Apr. 5 (gage height, 8.79 ft or 2.679 m); minimum, 910 ft³/s (25.8 m³/s) Aug. 29 (gage height, 1.10 ft or 0.335 m); minimum daily, 1,450 ft³/s (41.1 m³/s) Oct. 28.

Period of record: Maximum discharge, 185,000 ft³/s (5,240 m³/s) Aug. 14, 1940 (gage height, 23.42 ft or 7.138 m), from rating curve extended above 52,000 ft³/s (1,470 m³/s) on basis of flood records for other stations on New River; minimum, 412 ft³/s (11.7 m³/s) Sept. 7, 1930 (gage height, 0.47 ft or 0.143 m); minimum daily, 453 ft³/s (12.8 m³/s) Sept. 6, 1930.

REMARKS.--Records good. Large diurnal fluctuation and some regulation by powerplants 25 mi (40 km) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 783: Drainage area. WSP 823: 1936. WSP 1305: 1933(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,830	2,290	3,540	13,000	4,630	4,910	6,570	2,940	4,040	5,690	1,930	1,930
2	5,940	2,480	2,880	12,500	4,360	4,000	6,200	3,170	5,940	4,430	1,870	1,830
3	5,910	2,330	2,480	8,880	5,260	4,430	5,660	3,320	5,450	3,540	1,700	2,530
4	3,770	1,990	2,380	8,240	7,220	4,040	15,300	3,510	3,840	2,880	3,770	2,800
5	2,430	1,950	3,580	8,240	6,640	3,740	33,600	3,870	3,320	3,580	5,590	2,930
6	2,100	1,930	7,850	7,340	5,550	3,670	16,400	3,910	2,970	4,260	3,870	3,380
7	1,830	2,130	4,990	6,420	5,210	3,810	10,700	4,040	3,970	5,620	3,480	7,740
8	1,870	1,990	4,160	5,980	5,040	3,770	8,280	3,460	7,220	4,100	3,260	6,830
9	2,410	1,870	3,840	5,940	4,770	3,320	7,660	3,840	5,240	3,870	3,480	4,600
10	2,830	1,800	4,630	7,660	4,500	3,480	6,450	4,460	5,040	3,540	3,510	3,350
11	2,640	1,650	3,770	8,070	4,530	3,640	6,010	3,510	5,110	3,810	3,230	7,420
12	2,250	1,740	3,110	7,900	4,000	3,610	5,350	3,910	3,640	3,050	3,080	5,310
13	2,040	1,630	3,110	7,180	3,770	6,310	5,040	13,300	3,510	2,690	2,660	4,800
14	1,830	1,630	3,710	6,420	4,670	5,830	5,690	3,450	3,510	2,480	2,660	6,090
15	1,830	1,630	4,330	5,240	6,160	5,110	5,350	3,940	3,110	2,530	2,430	4,430
16	1,800	1,590	4,150	4,980	6,050	4,460	4,910	4,980	3,140	2,240	2,240	3,580
17	1,630	1,610	3,480	4,630	5,310	4,360	4,560	4,530	4,040	2,330	1,830	2,970
18	1,610	1,590	2,640	4,160	5,280	4,430	4,500	3,740	3,230	2,170	2,410	2,940
19	1,570	1,540	2,800	3,610	5,590	4,040	4,290	3,480	2,830	2,150	2,740	2,940
20	1,500	1,520	4,000	3,580	6,640	4,360	4,070	3,870	2,720	1,890	3,200	2,330
21	1,610	1,590	13,500	5,240	6,870	7,300	3,710	3,480	2,510	2,310	2,790	2,010
22	1,570	2,330	10,700	6,010	9,320	11,500	3,870	3,380	2,800	2,640	2,260	2,100
23	1,560	3,710	6,640	4,730	13,100	8,660	3,840	4,330	3,670	1,910	2,130	2,910
24	1,560	2,740	5,240	4,870	9,770	6,680	4,290	4,700	3,350	2,250	1,650	2,150
25	1,520	2,190	4,560	5,110	7,380	5,690	3,540	3,940	2,800	2,130	2,170	2,170
26	1,540	2,130	8,450	6,120	6,120	4,870	3,420	3,510	2,770	3,540	2,530	2,010
27	1,500	2,190	18,900	6,950	5,110	4,530	3,230	3,840	2,660	2,770	1,910	2,040
28	1,450	2,880	12,400	6,680	5,140	4,070	3,290	4,040	7,030	2,850	1,910	2,170
29	2,190	5,550	7,950	5,800	-------	4,070	3,260	3,170	14,400	3,170	1,890	3,260
30	2,240	4,940	6,870	5,090	-------	5,730	3,290	3,380	7,740	2,190	2,060	2,990
31	2,090	-------	6,680	4,940	-------	7,100	-------	3,580	-------	1,990	1,590	-------
TOTAL	68,450	67,140	177,330	202,710	168,010	155,520	202,330	135,600	131,600	94,610	81,830	104,340
MEAN	2,208	2,238	5,720	6,539	6,000	5,017	6,744	4,374	4,387	3,052	2,640	3,478
MAX	5,940	5,550	18,900	13,000	13,100	11,500	33,600	13,300	14,400	5,690	5,590	7,740
MIN	1,450	1,520	2,380	3,580	3,770	3,320	3,230	2,940	2,510	1,890	1,590	1,930
CFSM	1.00	1.02	2.60	2.97	2.72	2.28	3.06	1.99	1.99	1.39	1.20	1.58
IN	1.16	1.13	3.00	3.42	2.84	2.63	3.42	2.29	2.22	1.60	1.38	1.76

CAL YR 1973 TOTAL 1,676,840 MEAN 4,594 MAX 47,300 MIN 1,090 CFSM 2.09 IN 28.33
WTR YR 1974 TOTAL 1,589,470 MEAN 4,355 MAX 33,600 MIN 1,450 CFSM 1.98 IN 26.85

PEAK DISCHARGE (BASE, 17,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0430	6.31	22,600	6-29	0345	5.62	18,400
4- 5	0515	8.79	38,900				

03169000 CLAYTOR RESERVOIR NEAR RADFORD, VA.

LOCATION.--Lat 37°04'28", long 80°35'05", Pulaski County, at Claytor Dam on New River, 0.5 mi (0.8 km) upstream from Little River, and 5.5 mi (8.8 km) upstream from Radford.

DRAINAGE AREA.--2,382 mi² (6,169 km²).

PERIOD OF RECORD.--May 1939 to current year (monthly figures only).

GAGE.--Water-stage recorder. Datum of gage is at approximately mean sea level (levels by Appalachian Power Co.). Prior to Sept. 11, 1943, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by gravity overflow concrete dam. Spillway with crest at elevation 1,818.5 ft (554.28 m) is equipped with 9 lift gates 30 ft (9.1 m) high by 50 ft (15.2 m) wide. Dam completed and storage began May 22, 1939; water in reservoir reached minimum pool elevation in January 1940. Total level-pool capacity at elevation 1,847.0 ft or 562.97 m (1.5 ft or 0.46 m below top of gates) is 230,100 acre-ft (284 hm³) of which about 100,000 acre-ft (about 123 hm³) is controlled storage above elevation 1,820.0 ft or 554.74 m (minimum pool). Reservoir is used for hydroelectric power and recreation.

COOPERATION.--Records furnished by Appalachian Power Co.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,844.95	221,000	-
Oct. 31	1,844.37	218,500	-2,500
Nov. 30	1,844.57	219,400	+900
Dec. 31	1,844.81	220,400	+1,000
CAL YR 1973	-	-	+1,300
Jan. 31	1,844.20	217,800	-2,600
Feb. 28	1,845.49	223,300	+5,500
Mar. 31	1,844.01	217,000	-6,300
Apr. 30	1,844.37	218,500	+1,500
May 31	1,843.05	212,900	-5,600
June 30	1,845.91	225,100	+12,200
July 31	1,845.15	221,900	-3,200
Aug. 31	1,845.20	222,100	+200
Sept. 30	1,845.65	224,000	+1,900
WTR YR 1974	-	-	+3,000

03170000 LITTLE RIVER AT GRAYSONTON, VA.

LOCATION.--Lat 37°02'15", long 80°33'25", Pulaski County, on left bank at upstream side of highway bridge at Snowville, 0.5 mi (0.8 km) southeast of Graysonton, 7 mi (11 km) south of Radford, and 8.6 mi (13.8 km) upstream from mouth.

DRAINAGE AREA.--300 mi² (777 km²).

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,816.04 ft (553.529 m) above mean sea level. Prior to Nov. 20, 1931, nonrecording gage at bridge 1.0 mi (1.6 km) downstream at datum 17.99 ft (5.483 m) lower. Nov. 20, 1931, to Nov. 12, 1941, water-stage recorder 1.2 mi (1.9 km) downstream at datum 20.58 ft (6.273 m) lower.

AVERAGE DISCHARGE.--46 years, 360 ft³/s or 10.20 m³/s (16.30 in/yr or 414 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,390 ft³/s (153 m³/s) Apr. 4 (gage height, 5.46 ft or 1.664 m); minimum, 155 ft³/s (4.39 m³/s) July 15, 17, 19, Aug. 2, 3, 23, 24 (gage height, 1.10 ft or 0.335 m), due to regulation from unknown source; minimum daily, 160 ft³/s (4.53 m³/s) Aug. 2, 23.

Period of record: Maximum discharge, 22,800 ft³/s (646 m³/s) June 21, 1972 (gage height, 13.40 ft or 4.084 m), from rating curve extended above 16,000 ft³/s (453 m³/s) on basis of slope-area measurements at gage heights 12.76 ft (3.889 m) and 13.40 ft (4.084 m); minimum, 21 ft³/s (0.59 m³/s) Feb. 22, 1942, result of freezeup; minimum daily, 50 ft³/s (1.42 m³/s) Sept. 21, 1932.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 823: 1929-36. WSP 1143: 1945. WSP 1305: 1929(M). WSP 1555: Drainage area (at site used 1928-41). WSP 1625: 1951(M). WSP 1725: 1936(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	265	213	1,350	404	444	479	302	334	255	167	183
2	884	265	203	809	444	423	438	307	441	246	150	196
3	712	222	200	667	533	405	412	408	441	251	164	236
4	342	209	196	667	645	379	2,710	400	346	227	209	419
5	270	227	340	675	519	362	2,800	334	307	218	255	270
6	236	260	631	595	478	385	1,090	432	291	307	232	471
7	214	227	340	528	478	412	744	382	329	340	192	1,960
8	231	213	275	478	478	385	824	329	352	291	200	547
9	250	260	385	471	458	367	596	384	367	251	227	303
10	245	240	471	561	460	359	526	547	296	236	222	776
11	227	198	363	533	412	355	479	344	367	218	200	2,140
12	214	198	291	683	408	605	451	363	256	209	192	538
13	259	195	323	512	412	493	444	1,240	250	209	199	503
14	205	195	454	471	438	444	444	540	312	192	188	425
15	235	198	455	451	425	400	432	432	400	193	296	329
16	194	195	385	438	412	400	400	385	318	175	183	296
17	183	198	352	490	435	423	355	363	352	174	188	270
18	174	183	218	382	451	385	412	340	302	163	183	250
19	183	183	340	363	519	382	352	345	250	183	167	246
20	193	187	582	358	653	414	339	369	251	193	166	227
21	183	195	2,530	736	354	839	352	345	241	183	227	214
22	183	291	1,010	924	453	851	366	329	246	171	163	213
23	185	251	610	584	1,280	575	373	375	241	171	160	205
24	184	215	547	512	720	491	359	436	236	199	353	190
25	184	209	478	744	596	444	346	334	232	205	290	195
26	183	209	1,820	780	470	414	334	302	232	352	209	195
27	183	222	2,870	899	450	400	329	329	241	451	192	188
28	184	251	1,030	764	464	385	318	345	241	296	171	222
29	400	285	675	617	------	382	319	302	412	232	270	227
30	303	241	582	541	------	567	307	307	337	205	265	190
31	235	------	653	495	------	639	------	329	------	174	200	------
TOTAL	8,137	6,560	19,741	18,890	14,196	13,854	18,008	12,521	9,311	7,154	6,531	12,870
MEAN	262	219	637	610	507	447	600	404	310	231	211	429
MAX	884	291	2,870	1,350	1,280	851	2,800	1,240	441	451	353	2,140
MIN	174	183	196	358	400	355	307	302	232	171	160	183
CFSM	.87	.73	2.12	2.03	1.69	1.49	2.00	1.35	1.03	.77	.70	1.43
IN.	1.01	.82	2.45	2.34	1.76	1.72	2.23	1.55	1.15	.89	.81	1.60

CAL YR 1973 TOTAL 174,114 MEAN 477 MAX 5,800 MIN 174 CFSM 1.59 IN 21.59
WTR YR 1974 TOTAL 147,606 MEAN 404 MAX 2,870 MIN 160 CFSM 1.35 IN 18.31

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-21	0500	4.18	3,470	4- 4	2130	5.46	5,390
12-27	0400	4.75	4,320	9-10	2230	4.41	3,820

03171000 NEW RIVER AT RADFORD, VA.

LOCATION.--Lat 37°08'30", long 80°34'10", Pulaski County, on left bank 2,000 ft (610 m) downstream from bridge on U.S. Highway 11 at Radford, 5 mi (8 km) downstream from Little River, and 5.5 mi (8.8 km) downstream from Claytor Dam.

DRAINAGE AREA.--2,748 mi² (7,117 km²).

PERIOD OF RECORD.--October 1907 to September 1915, August 1939 to current year. Records for August 1898 to September 1907, published in WSP 27, 36, 48, 65, 83, 98, 128, 169, 205, 243, and 536, are unreliable and should not be used. Gage-height records collected at same site since 1895 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 1,712.16 ft (521.866 m) above mean sea level. Prior to Aug. 30, 1939, nonrecording gage at highway bridge 2,000 ft (610 m) upstream at datum 0.85 ft (0.259 m) lower.

AVERAGE DISCHARGE.--43 years, 3,778 ft³/s or 107.0 m³/s (18.67 in/yr or 474 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 41,000 ft³/s (1,160 m³/s) Apr. 5 (gage height, 12.36 ft or 3.767 m); minimum, 657 ft³/s (18.6 m³/s) Aug. 4 (gage height, 1.63 ft or 0.497 m); minimum daily, 904 ft³/s (25.6 m³/s) Aug. 31.

Period of record: Maximum discharge, 218,000 ft³/s (6,170 m³/s) Aug. 14, 1940 (gage height, 35.96 ft or 10.961 m), from rating curve extended above 76,000 ft³/s (2,150 m³/s) on basis of records for other stations on New River and flow over Claytor Dam (computed by Appalachian Power Co.); minimum, 165 ft³/s (4.67 m³/s) Aug. 25, 27, 1944 (gage height, 1.08 ft or 0.329 m); minimum daily, 550 ft³/s (15.6 m³/s) Aug. 22, 1911.

Flood of July 16, 1916, reached a stage of 35.7 ft or 10.88 m (discharge, 200,000 ft³/s or 5,660 m³/s), at site and datum used by Geological Survey 1907-15, from reports of the National Weather Service.

REMARKS.--Records good. Flow regulated since 1939 by Claytor Reservoir (see sta 03169000). Some additional regulation at low flow by dam and powerplant on Little River. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 873: Drainage area. WSP 953: 1940-41. WSP 1305: 1908-12. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,560	3,400	2,660	12,800	5,290	6,210	4,720	3,960	3,390	6,620	2,880	1,060
2	6,320	2,230	2,010	12,200	4,970	6,470	7,540	3,590	4,410	7,010	3,040	1,220
3	7,180	1,820	3,090	12,000	5,830	3,540	6,450	4,080	5,090	3,970	1,330	4,950
4	6,890	1,570	4,430	11,900	6,740	4,390	14,300	3,330	4,930	3,750	2,850	4,320
5	4,180	2,550	5,110	11,400	8,710	4,700	36,500	4,960	4,520	3,760	4,900	4,340
6	1,930	2,460	7,980	8,120	6,230	4,400	16,600	4,030	4,300	4,520	5,790	6,940
7	2,400	2,580	5,690	6,260	5,560	4,550	11,900	4,500	6,070	5,560	4,170	11,300
8	3,250	2,650	5,310	6,820	5,360	4,520	11,300	4,580	6,900	4,510	4,610	4,920
9	2,210	2,560	3,960	8,770	5,280	3,770	10,600	4,590	3,470	4,710	4,370	4,150
10	3,490	2,180	4,200	9,900	4,550	2,510	6,730	4,800	5,190	3,970	3,120	4,480
11	2,690	1,430	4,870	7,190	5,410	4,770	6,400	5,270	6,070	4,570	1,390	8,890
12	3,350	2,960	4,540	7,080	4,270	5,570	6,560	6,720	4,700	4,310	3,820	4,600
13	1,500	2,410	5,240	6,750	4,970	6,090	6,890	12,500	5,210	3,540	3,870	5,300
14	1,610	2,190	4,430	6,030	5,650	5,780	4,480	9,290	4,750	2,380	3,720	4,480
15	2,070	1,890	3,870	5,640	5,680	5,540	6,270	9,110	1,730	3,620	2,980	4,510
16	1,970	2,410	5,020	5,920	5,970	5,390	5,480	7,010	5,150	2,950	2,860	2,680
17	2,290	1,110	3,790	5,270	6,100	4,890	6,120	5,590	4,270	2,660	936	3,580
18	2,050	1,110	4,200	4,660	4,350	4,260	5,070	2,890	4,600	2,270	938	3,310
19	1,920	2,130	3,530	4,760	6,330	5,580	5,370	1,830	3,720	2,450	2,690	4,250
20	1,420	1,860	6,260	2,750	6,210	7,130	3,730	5,420	4,260	1,460	3,370	3,150
21	1,270	2,610	13,700	7,490	7,570	10,200	2,760	4,210	3,040	1,550	3,390	2,290
22	1,980	1,220	11,500	8,040	10,900	11,700	5,040	4,100	2,640	4,160	3,580	1,600
23	1,580	4,460	7,360	6,700	12,600	8,200	5,350	5,980	3,130	2,700	2,980	2,550
24	1,750	2,240	5,320	5,940	11,000	5,120	4,140	5,120	3,750	3,060	1,220	2,860
25	1,690	2,160	6,420	5,970	7,750	6,000	4,210	3,040	3,670	2,600	1,410	2,300
26	2,270	3,390	9,940	5,610	7,490	5,640	5,190	4,320	4,720	4,270	4,200	2,500
27	1,600	4,960	18,100	7,960	5,540	5,300	3,310	5,230	3,520	3,960	2,880	2,230
28	1,130	4,570	14,000	7,610	5,570	5,830	2,540	6,270	8,430	1,420	2,720	3,260
29	3,990	4,650	11,700	5,980	------	5,370	5,330	4,380	9,240	2,780	2,580	1,530
30	3,800	5,110	9,150	7,130	------	7,190	3,760	3,810	9,180	4,210	2,380	3,290
31	3,220	------	7,990	5,920	------	6,140	------	5,130	------	2,510	904	------
TOTAL	85,550	78,870	205,370	230,570	181,880	176,750	224,640	159,640	144,050	111,810	91,878	117,140
MEAN	2,760	2,629	6,625	7,438	6,496	5,702	7,488	5,150	4,802	3,607	2,964	3,905
MAX	7,180	5,110	18,100	12,800	12,600	11,700	36,500	12,500	9,240	7,010	5,790	11,300
MIN	1,130	1,110	2,010	2,750	4,270	2,510	2,540	1,830	1,730	1,420	904	1,060
(*)	-40	+14	+17	-42	+100	-103	+26	-92	+206	-53	+3	+32
MEAN‡	2,720	2,643	6,642	7,396	6,596	5,599	7,514	5,058	5,008	3,554	2,967	3,937
CFSM‡	.99	.96	2.42	2.69	2.40	2.04	2.73	1.84	1.82	1.29	1.08	1.43
IN‡	1.14	1.07	2.79	3.10	2.50	2.35	3.05	2.12	2.03	1.49	1.24	1.60

CAL YR 1973 TOTAL 1,953,690 MEAN 5,353 MAX 50,400 MIN 1,070 MEAN‡ 5,355 CFSM‡ 1.95 IN‡ 26.44
WTR YR 1974 TOTAL 1,808,158 MEAN 4,954 MAX 36,500 MIN 904 MEAN‡ 4,958 CFSM‡ 1.80 IN‡ 24.48

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN CLAYTOR RESERVOIR; FURNISHED BY APPALACHIAN POWER CO.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

03171500 NEW RIVER AT EGGLESTON, VA.

LOCATION.--Lat 37°17'22", long 80°37'01", Giles County, on left bank 50 ft (15 m) downstream from highway bridge at Eggleston, 1.9 mi (3.1 km) downstream from Spruce Run, and 7.8 mi (12.6 km) upstream from Walker Creek.

DRAINAGE AREA.--2,941 mi² (7,617 km²).

PERIOD OF RECORD.--October 1914 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,615.59 ft (492.432 m) above mean sea level. Prior to July 2, 1926, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--60 years, 3,924 ft³/s or 111.1 m³/s (18.12 in/yr or 460 mm/yr).

EXTREMES.--Current year: Maximum discharge, 40,100 ft³/s (1,140 m³/s) Apr. 5 (gage height, 14.83 ft or 4.520 m); minimum, 850 ft³/s (24.1 m³/s) Aug. 4 (gage height, 2.74 ft or 0.835 m); minimum daily, 874 ft³/s (24.8 m³/s) Sept. 1.

Period of record: Maximum discharge, 219,000 ft³/s (6,200 m³/s) Aug. 14, 1940 (gage height, 41.16 ft or 12.546 m), from rating curve extended above 83,000 ft³/s (2,350 m³/s) on basis of flood records for other stations on New River; minimum, 250 ft³/s (7.08 m³/s) Jan. 24, 1966 (gage height, 1.80 ft or 0.549 m), result of freezeup; minimum daily, 635 ft³/s (18.0 m³/s) July 20, 21, Sept. 28, 1926.

Flood in September 1878 reached a stage of about 40 ft or about 12.2 m (discharge, about 209,000 ft³/s or about 5,920 m³/s).

REMARKS.--Records good. Flow regulated since 1939 by Claytor Reservoir 30 mi (48 km) above station (see sta 03169000). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 536: 1915. WSP 783: Drainage area. WSP 893: 1916(M). WSP 1275: 1918-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,170	3,100	4,800	13,500	5,860	6,150	3,820	4,060	4,990	7,070	2,520	874
2	4,810	3,500	2,240	12,800	5,340	6,680	7,480	3,560	3,150	6,540	2,700	1,200
3	7,200	1,930	2,360	12,300	6,010	4,490	6,730	3,830	5,090	4,460	2,610	2,770
4	7,100	1,690	3,510	12,200	6,390	4,460	11,000	3,860	4,600	4,200	1,100	4,990
5	5,010	2,040	4,910	11,700	9,060	4,750	35,600	3,310	4,630	2,910	4,680	3,800
6	3,240	2,640	8,160	9,920	6,970	4,950	20,900	4,880	4,330	4,190	5,980	5,860
7	2,340	2,040	5,820	6,620	5,750	4,950	12,200	3,900	4,950	5,520	4,110	11,700
8	2,520	2,320	5,670	6,580	5,900	4,890	11,500	4,400	7,500	4,090	4,000	7,960
9	3,030	2,660	6,250	8,980	5,470	4,510	11,100	4,350	3,750	4,390	4,500	2,950
10	2,890	2,590	3,410	10,100	5,290	3,420	7,820	4,750	4,540	3,970	3,600	4,250
11	2,760	1,650	5,200	8,240	5,030	3,600	6,300	5,300	5,750	4,440	2,500	9,030
12	3,090	1,580	4,240	7,750	5,410	5,300	6,830	5,670	4,400	3,860	1,500	5,510
13	2,180	2,980	5,480	6,950	4,610	7,160	6,800	12,500	4,900	4,160	4,490	5,360
14	1,590	2,230	5,010	6,470	5,440	6,510	5,360	9,380	4,350	2,520	3,630	4,560
15	1,950	2,170	4,760	6,200	6,430	6,060	5,940	8,670	3,520	2,670	3,620	4,610
16	1,970	1,840	4,220	6,360	6,130	5,440	5,780	6,820	2,680	3,410	2,930	4,430
17	2,150	2,420	4,960	5,440	6,420	5,360	5,420	6,590	4,670	2,360	2,320	3,970
18	2,050	990	4,120	5,370	5,120	4,780	5,670	4,710	4,150	2,570	896	3,280
19	1,860	1,280	4,030	5,020	5,970	5,700	5,240	2,040	4,200	2,210	1,250	3,360
20	1,410	1,880	4,560	3,650	6,880	6,520	4,910	3,420	3,490	1,950	3,170	4,440
21	1,300	2,060	14,200	6,530	7,680	9,690	3,570	5,040	3,310	1,130	3,400	2,500
22	1,700	2,600	12,400	8,320	10,300	12,300	3,260	4,040	2,310	2,060	3,210	1,600
23	1,850	2,320	8,550	7,200	12,800	9,210	5,100	5,020	4,090	4,120	3,500	2,500
24	1,610	3,320	5,450	6,260	11,500	6,830	5,190	5,680	1,730	2,660	2,540	2,800
25	1,690	2,350	6,700	6,590	8,700	5,350	3,860	4,090	3,880	2,740	1,530	2,200
26	2,170	2,850	9,580	6,070	7,730	6,100	4,630	3,060	4,310	3,020	1,770	2,500
27	1,600	4,620	19,100	7,910	6,390	5,730	4,550	5,080	3,460	5,510	4,220	2,200
28	1,320	4,730	15,000	8,480	5,860	5,580	2,930	5,520	6,880	1,940	2,590	3,200
29	2,850	4,760	12,100	7,140	------	5,760	3,360	5,160	8,930	1,830	2,840	1,700
30	4,120	5,030	10,200	7,300	------	6,920	4,660	4,000	8,930	3,560	2,660	2,500
31	3,300	------	7,800	6,670	------	8,320	------	4,100	------	3,330	1,860	------
TOTAL	84,630	78,770	214,800	244,620	190,440	187,470	227,590	156,950	137,460	109,390	92,226	118,504
MEAN	2,730	2,626	6,929	7,891	6,801	6,047	7,586	5,063	4,582	3,529	2,975	3,950
MAX	7,200	5,030	19,100	13,500	12,800	12,300	35,600	12,500	8,930	7,070	5,980	11,700
MIN	1,300	990	2,240	3,650	4,610	3,420	2,930	2,040	1,730	1,130	896	874
(*)	-40	+14	+17	-42	+100	-103	+26	-92	+206	-53	+3	+32
MEAN#	2,690	2,640	6,946	7,849	6,901	5,944	7,612	4,971	4,788	3,476	2,978	3,982
CFSM#	.91	.90	2.36	2.67	2.35	2.02	2.59	1.69	1.63	1.18	1.01	1.35
IN#	1.05	1.00	2.72	3.08	2.45	2.33	2.89	1.95	1.82	1.36	1.16	1.51

CAL YR 1973 TOTAL 2,037,260 MEAN 5,582 MAX 50,100 MIN 990 MEAN# 5,584 CFSM# 1.90 IN# 25.76
WTR YR 1974 TOTAL 1,842,850 MEAN 5,049 MAX 35,600 MIN 874 MEAN# 5,053 CFSM# 1.72 IN# 23.32

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN CLAYTOR RESERVOIR; FURNISHED BY APPALACHIAN POWER CO.

# ADJUSTED FOR CHANGE IN CONTENTS.

03173000 WALKER CREEK AT BANE, VA.

LOCATION.--Lat 37°16'05", long 80°42'35", Giles County, on left bank at Bane, 0.2 mi (0.3 km) downstream from bridge on State Highway 100, 0.2 mi (0.3 km) downstream from Sugar Run, and 7.9 mi (12.7 km) upstream from mouth.

DRAINAGE AREA.--305 mi² (790 km²).

PERIOD OF RECORD.--March 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,665.92 ft (507.772 m) above mean sea level. Prior to Aug. 1, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--36 years, 323 ft³/s or 9.147 m³/s (14.38 in/yr or 365 mm/yr).

EXTREMES.--Current year: Maximum discharge, 10,100 ft³/s (286 m³/s) Apr. 4 (gage height, 13.01 ft or 3.965 m), from rating curve extended as explained below; minimum, 56 ft³/s (1.59 m³/s) Aug. 30 (gage height, 3.06 ft or 0.933 m).

Period of record: Maximum discharge, 16,500 ft³/s (467 m³/s) Jan. 30, 1957 (gage height, 16.50 ft or 5.029 m), from rating curve extended above 7,200 ft³/s (204 m³/s) on basis of slope-area measurement of peak flow; minimum, 15 ft³/s (0.42 m³/s) Dec. 21, 1958 (gage height, 2.42 ft or 0.738 m), result of freezeup; minimum daily, 24 ft³/s (0.68 m³/s) Sept. 27, 28, 1964.

Flood in September 1878 reached a stage of about 23.5 ft (7.16 m).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1143: 1939(M), 1940, 1944, 1946. WSP 1305: 1938(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	165	367	3,070	635	450	364	164	245	472	78	61
2	308	201	285	1,980	571	400	347	168	265	360	74	68
3	270	174	238	1,440	615	355	312	188	262	284	78	87
4	169	149	211	1,640	640	323	3,200	193	240	228	79	105
5	135	140	678	1,560	585	298	5,000	178	210	200	83	83
6	112	142	984	1,160	531	301	1,000	203	190	259	84	80
7	99	141	590	918	495	477	800	230	183	250	76	109
8	105	131	428	730	463	585	650	225	180	195	78	129
9	160	125	459	695	423	526	700	360	166	208	80	104
10	149	117	481	906	355	463	580	615	183	180	80	274
11	128	108	386	1,030	331	418	495	499	149	188	78	271
12	111	102	322	1,380	308	522	441	1,600	131	166	76	218
13	101	99	310	1,030	305	1,800	414	3,240	122	143	74	155
14	93	96	482	804	323	1,320	382	1,300	117	126	75	122
15	87	94	624	685	351	930	355	834	115	115	71	105
16	83	93	521	590	369	745	319	625	133	117	76	96
17	76	92	461	508	400	665	291	490	195	110	83	89
18	75	90	374	441	405	481	284	405	145	102	86	83
19	73	86	345	387	544	382	262	351	120	99	96	78
20	72	85	444	355	1,290	463	245	305	112	98	119	72
21	72	89	2,350	571	1,110	2,080	233	274	105	95	96	70
22	72	107	1,560	770	1,420	4,300	223	253	101	90	79	69
23	70	131	987	665	1,800	2,000	230	259	105	90	74	69
24	69	123	737	595	1,160	1,250	230	280	110	105	68	67
25	69	119	626	740	876	786	210	230	104	115	66	62
26	67	120	1,940	1,080	675	544	198	208	98	126	64	61
27	66	331	4,040	1,670	558	405	190	203	119	102	61	61
28	67	651	1,790	1,260	504	298	183	193	1,410	98	60	64
29	105	619	1,140	1,080	------	245	175	175	1,180	92	58	68
30	198	512	1,490	888	------	271	171	193	740	87	56	75
31	160	------	1,560	745	------	369	------	240	------	80	58	------
TOTAL	3,498	5,632	27,210	31,373	18,042	24,452	18,484	14,681	7,535	4,980	2,364	3,055
MEAN	113	188	878	1,012	644	789	616	474	251	161	76.3	102
MAX	308	651	4,040	3,070	1,800	4,300	5,000	3,240	1,410	472	119	274
MIN	66	85	211	355	305	245	171	164	98	80	56	61
CFSM	.37	.62	2.88	3.32	2.11	2.59	2.02	1.55	.82	.53	.25	.33
IN	.43	.69	3.32	3.83	2.20	2.98	2.25	1.79	.92	.61	.29	.37

CAL YR 1973 TOTAL 157,384 MEAN 431 MAX 5,560 MIN 61 CFSM 1.41 IN 19.20
WTR YR 1974 TOTAL 161,296 MEAN 442 MAX 5,000 MIN 56 CFSM 1.45 IN 19.67

PEAK DISCHARGE (BASE, 4,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0300	10.18	5,410	4- 4	2300	13.01	10,100
3-22	0130	10.42	5,760	5-13	0030	10.47	5,840

03175500 WOLF CREEK NEAR NARROWS, VA.

LOCATION.--Lat 37°18'20", long 80°51'00", Giles County, on right bank at downstream side of bridge on State Highway 724, 2.8 mi (4.5 km) southwest of Narrows, and 3.5 mi (5.6 km) upstream from mouth.

DRAINAGE AREA.--223 mi^2 (578 km^2).

PERIOD OF RECORD.--July 1908 to September 1916, March 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,583.83 ft (482.751 m) above mean sea level. July 22, 1908, to Sept. 30, 1916, and Mar. 31 to Nov. 7, 1938, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--44 years, 295 ft^3/s or 8.354 m^3/s (17.96 in/yr or 456 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,900 ft^3/s (167 m^3/s) Dec. 27 (gage height, 9.59 ft or 2.923 m); minimum, 39 ft^3/s (1.10 m^3/s) Aug. 29 (gage height, 2.51 ft or 0.765 m).
Period of record: Maximum discharge, 12,900 ft^3/s (365 m^3/s) Jan. 29, 1957 (gage height, 12.55 ft or 3.825 m in gage well, 13.8 ft or 4.21 m, from floodmark at downstream side of bridge), from rating curve extended above 5,700 ft^3/s (161 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 8.8 ft^3/s (0.25 m^3/s) Dec. 25, 1953 (gage height, 2.28 ft or 0.695 m), result of freezeup; minimum daily, 16 ft^3/s (0.45 m^3/s) Sept. 17, 18, 26-28, 1964.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 973: 1940-41(M). WSP 1235: 1912-13, 1915-16. WSP 1505: 1940, monthly and yearly runoff. WSP 1725: 1913(M), 1915-16(M), 1941 calendar year runoff.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	200	543	2,680	510	387	450	170	239	319	63	50
2	189	224	417	1,810	490	347	495	180	263	263	61	52
3	195	174	336	1,520	570	315	460	190	263	197	61	53
4	136	144	283	1,970	550	287	1,490	200	235	161	66	50
5	106	148	287	1,620	490	263	1,640	180	204	176	68	48
6	86	185	333	1,110	445	263	1,010	220	182	323	63	52
7	75	165	281	861	413	490	756	250	173	218	58	74
8	84	149	245	675	387	645	625	240	164	164	56	71
9	118	134	260	690	351	580	635	400	158	146	58	66
10	106	121	238	828	307	505	550	600	149	138	58	167
11	86	106	217	1,230	287	450	490	500	135	130	56	173
12	75	99	191	1,670	267	620	440	1,400	123	123	55	112
13	69	92	204	1,100	271	2,400	383	1,800	14	111	55	87
14	66	87	578	833	307	1,690	319	940	09	100	56	74
15	65	83	582	680	339	1,070	287	675	.05	96	50	66
16	60	90	487	570	351	811	291	520	128	98	49	61
17	55	100	429	475	383	905	259	413	158	95	76	58
18	51	89	342	422	391	762	235	355	123	90	53	53
19	49	83	303	367	510	655	214	327	107	88	63	50
20	49	80	334	339	982	899	251	295	100	90	68	48
21	48	80	1,420	431	934	1,240	221	255	95	90	60	48
22	48	108	1,030	540	1,040	2,510	230	232	95	88	52	48
23	47	134	733	500	1,200	1,540	240	255	121	85	49	48
24	46	124	607	480	883	1,040	230	263	112	96	46	45
25	45	121	550	665	712	784	210	221	109	100	44	43
26	44	122	2,200	861	570	625	200	197	102	93	44	43
27	43	1,090	3,750	1,100	480	530	195	204	98	103	42	42
28	46	1,720	1,550	928	427	455	190	182	440	128	40	48
29	76	1,240	970	828	------	409	180	164	680	105	39	50
30	111	750	1,430	690	------	395	175	221	485	82	42	44
31	132	------	1,380	595	------	440	------	255	------	69	49	------
TOTAL	2,507	8,042	22,510	29,068	14,847	24,312	13,351	12,304	5,569	4,165	1,700	1,924
MEAN	80.9	268	726	938	530	784	445	397	186	134	54.8	64.1
MAX	195	1,720	3,750	2,680	1,200	2,510	1,640	1,800	680	323	76	173
MIN	43	80	191	339	267	263	175	164	95	69	39	42
CFSM	.36	1.20	3.26	4.21	2.38	3.52	2.00	1.78	.83	.60	.25	.29
IN	.42	1.34	3.76	4.85	2.48	4.06	2.23	2.05	.93	.69	.28	.32

CAL YR 1973 TOTAL 135,757 MEAN 372 MAX 4,360 MIN 43 CFSM 1.67 IN 22.65
WTR YR 1974 TOTAL 140,299 MEAN 384 MAX 3,750 MIN 39 CFSM 1.72 IN 23.40

PEAK DISCHARGE (BASE, 2,200 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-27	0130	9.59	5,900	3-22	0730	7.19	2,890
1- 1	1000	7.19	2,890	4- 4	1600	6.83	2,530
3-13	0900	7.18	2,880	5-13	UNKNOWN	6.85	2,550

03176500 NEW RIVER AT GLEN LYN, VA.

LOCATION.--Lat 37°22'20", long 80°51'45", Giles County, on right bank at upstream side of bridge on U.S. Highway 460 at Glen Lyn, 0.3 mi (0.5 km) upstream from East River, and 6.3 mi (10.1 km) downstream from Wolf Creek.

DRAINAGE AREA.--3,768 mi^2 (9,759 km^2).

PERIOD OF RECORD.--August 1927 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,490.24 ft (454.225 m) above mean sea level. Aug. 11, 1927, to Oct. 16, 1934, on left bank just upstream from highway bridge at same datum, and Oct. 17, 1934, to June 16, 1939, on left bank 200 ft (61 m) upstream from highway bridge at same datum.

AVERAGE DISCHARGE.--47 years, 4,936 ft^3/s or 139.8 m^3/s (17.79 in/yr or 452 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 47,000 ft^3/s (1,330 m^3/s) Apr. 5 (gage height, 11.75 ft or 3.581 m); minimum, 1,150 ft^3/s (32.6 m^3/s) Aug. 26 (gage height, 3.25 ft or 0.991 m); minimum daily, 1,190 ft^3/s (33.7 m^3/s) Aug. 19.

Period of record: Maximum discharge, 226,000 ft^3/s (6,400 m^3/s) Aug. 14, 1940 (gage height, 27.50 ft or 8.382 m), from rating curve extended above 89,000 ft^3/s (2,520 m^3/s) on basis of slope-area measurement of peak flow; minimum, 730 ft^3/s (20.7 m^3/s) Jan. 30, 1966, result of freezeup; minimum daily, 820 ft^3/s (23.2 m^3/s) Sept. 8, 1930; minimum gage height, 2.10 ft (0.640 m) Sept. 8, 1930.

REMARKS.--Records good. Flow regulated since 1939 by Claytor Reservoir 55 mi (88 km) above station (see sta 03169000). Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 758: Drainage area. WSP 1305: 1928(M), 1930(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,440	4,040	6,630	20,300	7,700	7,510	5,690	4,270	6,170	8,770	2,710	1,300
2	4,110	4,340	3,730	18,100	7,120	7,590	8,330	4,470	4,500	7,190	2,960	1,360
3	7,860	3,080	3,110	16,200	7,000	7,180	8,150	4,140	5,770	6,310	3,250	1,520
4	7,390	2,470	3,900	16,500	8,110	4,660	11,800	4,660	6,120	4,580	1,760	4,950
5	6,220	2,180	5,440	15,600	10,500	5,560	40,000	3,860	5,580	3,900	3,470	4,280
6	4,410	3,140	9,480	13,500	8,520	5,910	28,500	5,880	5,080	4,580	4,950	4,380
7	2,410	3,110	7,350	9,180	7,230	6,410	14,800	4,600	4,730	5,600	5,630	11,300
8	2,780	3,170	7,390	8,480	7,040	6,690	13,500	5,210	8,130	5,400	4,210	9,250
9	3,600	3,170	6,800	10,600	6,800	6,170	13,000	5,460	5,610	4,710	4,760	3,080
10	2,660	3,020	5,060	12,400	6,510	5,520	10,300	5,920	3,780	4,960	4,450	4,710
11	3,730	2,580	5,750	11,500	5,630	4,170	7,730	6,220	6,300	4,560	3,290	7,280
12	2,960	1,800	5,790	11,600	6,530	7,640	8,060	8,040	5,270	4,530	1,640	7,130
13	3,570	3,570	5,670	9,690	5,240	12,800	7,890	19,900	4,750	4,550	3,780	5,120
14	1,770	2,840	7,040	9,100	6,160	10,800	8,060	13,400	5,410	3,550	3,940	5,450
15	1,800	2,610	6,550	8,150	7,480	9,040	5,990	11,100	4,640	2,680	3,750	4,320
16	2,280	2,180	5,590	8,150	6,970	7,930	7,070	8,710	2,070	3,890	3,130	4,540
17	2,130	2,840	6,590	7,040	7,570	7,890	6,350	8,060	5,390	3,170	2,960	2,920
18	2,490	1,480	5,020	6,850	6,670	6,580	7,020	7,020	4,570	2,880	1,370	3,710
19	2,260	1,380	5,290	6,020	6,710	7,410	5,920	4,060	4,530	2,510	1,190	3,080
20	2,110	2,310	4,950	6,060	9,500	8,130	6,200	3,020	3,720	2,580	2,920	4,000
21	1,690	2,130	18,500	5,820	10,100	12,200	4,590	6,130	4,260	1,670	3,300	3,150
22	1,440	3,140	17,400	10,300	12,200	17,600	3,490	4,790	3,120	1,640	3,440	2,290
23	2,130	1,690	12,000	8,940	16,600	13,500	5,890	4,970	3,500	4,230	3,590	1,710
24	1,770	4,690	7,820	7,740	14,500	9,830	6,070	6,840	2,710	2,890	3,050	2,530
25	1,880	2,990	8,520	8,690	11,300	7,220	4,770	5,520	3,950	3,240	1,400	2,760
26	1,860	2,520	13,300	8,570	9,430	8,000	4,860	3,700	4,010	3,010	1,520	2,250
27	2,490	5,100	32,100	11,100	8,210	7,380	5,720	5,250	4,540	5,700	4,050	2,470
28	1,900	8,770	20,700	11,500	7,070	6,960	3,870	5,730	7,280	3,670	2,950	2,000
29	1,550	7,860	15,500	10,700	------	7,030	3,070	6,310	11,000	1,800	2,730	3,260
30	4,690	6,760	14,500	9,560	------	7,560	5,780	4,980	10,400	2,980	2,610	1,720
31	4,450	------	10,800	8,770	------	10,200	------	4,740	------	4,270	2,560	------
TOTAL	93,830	100,960	288,260	326,710	234,400	253,070	272,470	196,960	156,890	126,000	97,330	117,720
MEAN	3,027	3,365	9,299	10,540	8,371	8,164	9,082	6,354	5,230	4,065	3,140	3,924
MAX	7,860	8,770	32,100	20,300	16,600	17,600	40,000	19,900	11,000	8,770	5,630	11,300
MIN	1,440	1,380	3,110	5,820	5,240	4,170	3,070	3,020	2,070	1,640	1,190	1,300
(*)	-40	+14	+17	-42	+100	-103	+26	-92	+206	-53	+3	+32
MEAN‡	2,987	3,379	9,316	10,498	8,471	8,061	9,108	6,262	5,436	4,012	3,143	3,956
CFSM‡	.79	.90	2.47	2.79	2.25	2.14	2.42	1.66	1.44	1.06	.83	1.05
IN‡	.91	1.00	2.85	3.22	2.34	2.47	2.70	1.91	1.61	1.22	.96	1.17

CAL YR 1973 TOTAL 2,460,350 MEAN 6,741 MAX 66,000 MIN 1,290 MEAN‡ 6,743 CFSM‡ 1.79 IN‡ 24.27
WTR YR 1974 TOTAL 2,264,600 MEAN 6,204 MAX 40,000 MIN 1,190 MEAN‡ 6,208 CFSM‡ 1.65 IN‡ 22.36

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN CLAYTOR RESERVOIR; FURNISHED BY APPALACHIAN POWER CO.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

03177700 BLUESTONE RIVER AT BLUEFIELD, VA.

LOCATION.--Lat 37°15'21", long 81°16'55", Tazewell County, on right bank 50 ft (15 m) downstream from pump house and 1,000 ft (305 m) upstream from outfall of sewage treatment plant at Bluefield, 0.9 mi (1.4 km) downstream from Beaverpond Creek, and 3.5 mi (5.6 km) upstream from Brush Fork.

DRAINAGE AREA.--39.8 mi^2 (103.1 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 2,350 ft or 716 m (from topographic map).

AVERAGE DISCHARGE.--9 years, 54.3 ft^3/s or 1.538 m^3/s (18.53 in/yr or 471 mm/yr).

EXTREMES.--Current year: Maximum discharge observed, 520 ft^3/s (14.7 m^3/s) Mar. 12 (gage height, 4.90 ft or 1.494 m); minimum observed, 7.7 ft^3/s (0.22 m^3/s) Aug. 28 (gage height, 0.42 ft or 0.128 m).

Period of record: Maximum discharge observed, 937 ft^3/s (26.5 m^3/s) Apr. 14, 1972 (gage height, 7.00 ft or 2.134 m), from rating curve extended above 780 ft^3/s (22.1 m^3/s); minimum observed, 5.0 ft^3/s (0.14 m^3/s) Oct. 6, 1965, Dec. 3, 1969; minimum gage height, 0.38 ft (0.116 m) Oct. 6, 1965, Oct. 1, 1969.

REMARKS.--Records good. Discharge figures herein do not include effluent from sewage treatment plant as some of it comes from another watershed.

COOPERATION.--Records computed and furnished by the Virginia State Water Control Board.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	40	90	292	83	67	99	43	50	37	13	18
2	35	29	71	224	101	64	94	47	51	41	13	13
3	24	27	61	250	101	60	92	54	47	31	21	14
4	19	24	51	271	95	56	245	46	41	28	15	10
5	17	56	55	230	82	53	188	59	39	28	14	10
6	16	34	43	170	77	85	138	59	36	33	13	26
7	15	28	36	148	75	138	111	56	37	24	11	16
8	41	26	35	122	71	121	116	52	33	26	11	12
9	37	26	38	138	70	101	116	87	31	23	11	42
10	19	20	39	138	62	92	103	63	30	23	10	55
11	18	22	36	294	60	107	92	67	28	22	10	31
12	16	17	34	264	58	285	84	182	26	20	11	22
13	15	18	54	176	59	404	79	190	24	21	10	19
14	20	18	89	143	64	230	74	122	23	20	10	12
15	15	18	72	120	60	164	70	96	22	20	9.8	13
16	14	21	63	103	77	176	63	80	69	24	10	12
17	13	18	57	91	116	182	69	71	27	19	11	10
18	14	18	51	77	116	143	59	63	25	16	10	11
19	14	17	46	72	120	146	55	70	23	18	22	9.8
20	14	17	86	68	133	271	52	59	22	20	14	9.8
21	15	20	206	76	118	384	48	50	22	17	10	10
22	13	20	118	64	158	320	48	47	32	17	9.8	11
23	12	23	96	61	143	206	67	67	25	19	9.8	9.8
24	14	18	64	85	120	164	55	48	27	20	9.4	9.8
25	13	20	82	118	107	128	51	43	23	17	9.4	9.4
26	13	50	303	148	93	110	49	41	21	32	9.1	9.1
27	13	268	327	164	82	100	47	44	72	29	9.1	9.8
28	18	341	188	138	77	92	44	38	104	17	7.7	9.8
29	23	182	140	118	------	82	43	36	62	16	9.1	9.8
30	46	117	224	106	------	128	40	99	43	14	15	9.8
31	42	------	206	93	------	92	------	53	------	13	15	------
TOTAL	621	1,553	3,061	4,562	2,580	4,753	2,491	2,132	1,115	705	363.2	463.9
MEAN	20.0	51.8	99.4	147	92.1	153	83.0	68.8	37.2	22.7	11.7	15.5
MAX	46	341	327	294	158	404	245	190	104	41	22	55
MIN	12	17	34	61	58	53	40	36	21	13	7.7	9.1
CFSM	.50	1.30	2.50	3.69	2.31	3.84	2.09	1.73	.93	.57	.29	.39
IN	.58	1.45	2.68	4.26	2.41	4.44	2.33	1.99	1.04	.66	.34	.43
*FT^3/S	3.28	3.25	2.72	3.79	4.49	3.68	4.05	3.79	2.74	3.70	3.44	3.37

CAL YR 1973 TOTAL 20,561.8 MEAN 56.3 MAX 475 MIN 9.6 CFSM 1.41 IN 19.22 *FT^3/S 3.67
WTR YR 1974 TOTAL 24,420.1 MEAN 66.9 MAX 404 MIN 7.7 CFSM 1.68 IN 22.82 *FT^3/S 3.52

* SEWAGE TREATMENT PLANT EFFLUENT IN CUBIC FEET PER SECOND.

03207500 LEVISA FORK NEAR GRUNDY, VA.

LOCATION.--Lat 37°17'52", long 82°07'34", Buchanan County, on right bank 200 ft (61 m) upstream from Six and Twenty Mile Creek, 1,000 ft (305 m) upstream from wooden bridge to Appalachian Power Co. substation, 2.4 mi (3.9 km) northwest of Grundy, 2.5 mi (4.0 km) downstream from Slate Creek, and 3.0 mi (4.8 km) upstream from Poplar Creek.

DRAINAGE AREA.--235 mi^2 (609 km^2), includes that of Six and Twenty Mile Creek.

PERIOD OF RECORD.--October 1941 to September 1974 (discontinued). Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 988.50 ft (301.295 m) above mean sea level. Prior to Aug. 20, 1949, nonrecording gage at bridge 1,000 ft (305 m) downstream at datum 2.33 ft (0.710 m) lower. Aug. 20, 1949, to July 28, 1958, water-stage recorder at site 1,050 ft (320 m) downstream at datum 2.33 ft (0.710 m) lower, and July 29, 1958, to Aug. 1, 1961, at site 1,020 ft (311 m) downstream at datum 4.33 ft (1.320 m) lower.

AVERAGE DISCHARGE.--33 years, 286 ft^3/s or 8.100 m^3/s (16.53 in/yr or 420 mm/yr).

EXTREMES.--Current year: Maximum discharge, 16,000 ft^3/s (453 m^3/s) Jan. 11 (gage height, 13.63 ft or 4.154 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Aug. 27.

Period of record: Maximum discharge, 33,200 ft^3/s (940 m^3/s) Jan. 29, 1957 (gage height, 19.06 ft or 5.809 m, site and datum then in use), from rating curve extended above 4,400 ft^3/s (125 m^3/s) on basis of slope-area and contracted-opening measurements of peak flow; minimum observed, 0.2 ft^3/s (0.006 m^3/s) July 30, 1944; minimum gage height, 0.17 ft (0.052 m) Sept. 27-29, 1964.

Flood in March 1929 reached a stage of 16.0 ft (4.88 m), site and datum in use prior to July 29, 1958 (discharge, 21,800 ft^3/s or 617 m^3/s), from information by local residents.

REMARKS.--Records good except those for period of doubtful or no gage-height record, which are fair. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1305: 1947(M), 1949(M). WSP 1505: 1944-46(M), 1950(M), 1953(M), 1955(P), 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	250	320	2,500	474	229	640	176	207	310	27	64
2	140	180	260	1,500	625	207	625	237	1,000	218	25	54
3	80	140	230	1,300	1,190	192	519	512	753	157	35	42
4	65	110	200	2,300	920	176	1,850	603	419	131	63	52
5	50	370	190	1,500	640	166	1,510	506	272	127	56	37
6	37	350	160	900	506	210	871	546	203	119	34	32
7	33	200	140	640	419	526	617	493	169	106	27	64
8	240	150	130	500	369	648	553	406	143	92	32	50
9	230	120	135	800	313	512	770	381	196	89	28	38
10	110	90	130	2,000	263	400	805	324	137	78	26	125
11	70	80	120	9,930	245	413	671	292	117	73	25	193
12	50	70	115	2,820	233	1,080	560	1,640	102	70	25	123
13	45	62	150	1,320	245	2,720	487	1,470	92	60	22	119
14	43	59	220	937	292	1,070	432	753	82	54	20	80
15	40	58	260	703	313	648	419	493	77	50	18	63
16	30	120	250	532	617	752	363	357	258	57	26	47
17	28	120	220	432	1,350	1,100	324	307	182	55	25	38
18	25	110	190	357	814	744	282	329	120	43	30	33
19	24	100	180	313	588	876	254	292	96	41	32	28
20	23	90	190	277	480	2,950	229	245	83	48	38	23
21	23	110	360	268	352	4,690	203	203	88	50	51	27
22	22	160	580	233	480	2,460	192	179	550	39	30	35
23	20	160	450	218	595	1,280	406	277	480	35	21	28
24	19	150	400	268	532	863	329	245	260	38	18	20
25	18	140	400	814	432	617	272	199	189	36	17	19
26	18	240	3,810	1,370	335	506	241	165	148	38	16	18
27	18	3,110	2,500	1,460	282	426	218	148	203	102	13	17
28	60	4,390	900	1,010	254	369	199	130	1,350	55	14	20
29	180	1,200	660	988	------	335	179	120	1,090	37	27	22
30	400	550	680	814	------	446	166	169	509	43	31	18
31	370	------	900	610	------	532	------	151	------	36	97	------
TOTAL	2,681	13,039	15,430	39,614	14,158	28,143	15,186	12,349	9,655	2,487	949	1,529
MEAN	86.5	435	498	1,278	506	908	506	398	322	80.2	30.6	51.0
MAX	400	4,390	3,810	9,930	1,350	4,690	1,850	1,640	1,350	310	97	193
MIN	18	58	115	218	233	166	166	120	77	35	13	17
CFSM	.37	1.85	2.12	5.44	2.15	3.86	2.15	1.69	1.37	.34	.13	.22
IN	.42	2.06	2.44	6.27	2.24	4.45	2.40	1.95	1.53	.39	.15	.24

CAL YR 1973 TOTAL 114,681 MEAN 314 MAX 7,890 MIN 14 CFSM 1.34 IN 18.15
WTR YR 1974 TOTAL 155,220 MEAN 425 MAX 9,930 MIN 13 CFSM 1.81 IN 24.57

PEAK DISCHARGE (BASE, 3,500 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1800	7.61	5,820	3-13	0200	6.37	4,080
11-28	0700	9.05	8,180	3-20	0500	6.13	3,770
12-26	1530	8.21	6,760	3-21	1330	9.29	8,590
1-11	1000	13.63	16,000				

NOTE.--DOUBTFUL OR NO GAGE-HEIGHT RECORD OCT. 1 TO NOV. 26.

03207800 LEVISA FORK AT BIG ROCK, VA.

LOCATION.--Lat 37°21'13", long 82°11'45", Buchanan County, on left bank at Big Rock, 2,000 ft (610 m) downstream from Rocklick Creek, and 2,500 ft (762 m) downstream from bridge on State Highway 645.

DRAINAGE AREA.--297 mi^2 (769 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 866.37 ft (264.070 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 386 ft^3/s or 10.93 m^3/s (17.65 in/yr or 448 mm/yr).

EXTREMES.--Current year: Maximum discharge, 19,200 ft^3/s (544 m^3/s) Jan. 11 (gage height, 15.90 ft or 4.846 m), from rating curve extended above 5,700 ft^3/s (161 m^3/s); minimum, 19 ft^3/s (0.54 m^3/s) Aug. 27 (gage height, 3.90 ft or 1.189 m).

Period of record: Maximum discharge, 19,200 ft^3/s (544 m^3/s) Jan. 11, 1974 (gage height, 15.90 ft or 4.846 m), from rating curve extended above 5,700 ft^3/s (161 m^3/s); minimum, 5.0 ft^3/s (0.14 m^3/s) Oct. 1, 13, 14, 17, 18, 19, 20, 1969 (gage height, 3.65 ft or 1.113 m).

Flood of Jan. 29, 1957, reached a stage of about 23.0 ft (7.01 m), information from local resident.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	214	326	460	3,110	592	325	764	225	287	376	41	88
2	176	230	347	1,820	841	294	756	276	2,100	261	36	70
3	107	169	288	1,650	1,630	274	603	581	1,100	198	45	67
4	89	130	252	2,780	1,240	250	2,370	740	562	166	126	66
5	63	467	248	1,990	832	234	2,200	592	349	156	83	55
6	47	434	218	1,190	639	283	1,180	659	265	148	56	44
7	41	269	176	841	531	680	789	579	223	130	51	64
8	307	191	160	616	460	925	707	471	208	116	68	66
9	292	157	163	1,040	396	762	1,130	426	260	112	52	71
10	149	124	169	2,490	336	588	1,130	367	184	101	46	117
11	96	100	157	11,600	318	608	902	332	151	95	43	248
12	71	87	143	3,770	300	1,600	717	2,260	135	89	48	140
13	56	79	180	1,750	318	3,880	603	1,990	123	78	39	157
14	55	74	283	1,130	369	1,720	529	883	111	70	34	103
15	51	72	336	822	394	1,010	529	518	109	66	31	80
16	40	154	326	623	608	1,130	447	353	331	66	39	63
17	35	151	297	495	1,750	1,760	392	316	210	76	44	52
18	32	138	248	408	1,060	1,220	347	343	144	58	46	46
19	30	130	226	362	762	1,370	310	294	119	56	52	39
20	29	112	230	331	628	4,080	280	240	106	65	51	34
21	29	132	546	321	464	5,560	252	198	118	65	72	40
22	28	210	732	288	610	3,330	244	172	696	56	49	46
23	25	199	592	265	792	1,700	780	306	600	50	34	40
24	24	187	495	331	724	1,090	515	275	378	53	29	31
25	23	176	495	1,070	609	754	386	218	256	51	27	27
26	22	297	4,720	1,820	474	596	327	182	212	50	25	26
27	21	4,720	3,190	2,060	396	490	290	164	270	107	24	26
28	72	5,710	1,290	1,340	356	420	262	154	2,040	77	24	29
29	230	1,590	822	1,320	------	381	238	136	1,660	57	48	31
30	502	723	851	1,060	------	510	221	174	678	84	52	27
31	467	------	1,140	776	------	624	------	182	------	53	91	------
TOTAL	3,423	17,538	19,780	49,469	18,429	38,448	20,200	14,606	13,985	3,186	1,506	1,993
MEAN	110	585	638	1,596	658	1,240	673	471	466	103	48.6	66.4
MAX	502	5,710	4,720	11,600	1,750	5,560	2,370	2,260	2,100	376	126	248
MIN	21	72	143	265	300	234	221	136	106	50	24	26
CFSM	.37	1.97	2.15	5.37	2.22	4.18	2.27	1.59	1.57	.35	.16	.22
IN	.43	2.20	2.48	6.20	2.31	4.82	2.53	1.83	1.75	.40	.19	.25

CAL YR 1973 TOTAL 143,830 MEAN 394 MAX 8,310 MIN 15 CFSM 1.33 IN 18.02
WTR YR 1974 TOTAL 202,563 MEAN 555 MAX 11,600 MIN 21 CFSM 1.87 IN 25.37

PEAK DISCHARGE (BASE, 4,500 FT^3/S, REVISED)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0830	10.69	8,440	3-13	0430	8.61	4,980
12-26	1530	10.28	7,700	3-20	0600	8.54	4,860
1-11	1100	15.90	19,200	3-21	1430	11.12	9,240

03208000 LEVISA FORK BELOW FISHTRAP DAM, NEAR MILLARD, KY.

LOCATION.--Lat 37°25'33", long 82°24'45", Pike County, on right bank 0.7 mi (1.1 km) downstream from Fishtrap Dam, 1.1 mi (1.8 km) upstream from Lower Pompey Branch, 1.9 mi (3.1 km) northeast of Millard, 2.4 mi (3.9 km) upstream from confluence with Russell Fork, and at mile 102.6. Prior to June 19, 1973, at site 1.0 mi (1.6 km) downstream.

DRAINAGE AREA.--392 mi² (1,015 km²).

PERIOD OF RECORD.--February 1938 to current year. Prior to April 1968, published as Levisa Fork at Fishtrap.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft (182.880 m) above mean sea level (levels by Corps of Engineers). Prior to Apr. 19, 1968, nonrecording gage at site 3.7 mi (6.0 km) upstream at different datum. Apr. 19, 1968, to June 18, 1973, water-stage recorder at site 1.0 mi (1.6 km) downstream at datum 59.96 ft (18.276 m) higher.

AVERAGE DISCHARGE.--36 years, 465 ft³/s or 13.17 m³/s (16.07 in/yr or 408 mm/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 8,540 ft³/s (242 m³/s) Jan. 17 (gage height, 85.77 ft or 26.143 m); minimum, 14 ft³/s (0.40 m³/s) Sept. 30.

Period of record: Maximum discharge, 33,000 ft³/s (935 m³/s) Jan. 29, 1957 (gage height, 33.9 ft or 10.33 m, from floodmark, site and datum then in use), from rating curve extended above 15,000 ft³/s (425 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 0.1 ft³/s (0.003 m³/s) Nov. 8, 9, 1939, site then in use.

REMARKS.--Records good. Flow regulated by Fishtrap Lake beginning October 1968. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 953: Drainage area. WSP 1335: 1938(M), 1939, 1940(M), 1942-43, 1944-45(M), 1946, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	730	5,460	2,760	986	342	1,020	357	1,290	682	124	87
2	364	422	2,190	3,610	797	176	603	283	1,480	466	108	87
3	500	279	555	2,670	1,640	650	96	297	2,690	353	91	87
4	533	186	380	3,070	2,170	494	118	689	3,030	145	162	85
5	524	281	378	2,710	1,500	343	119	1,120	1,340	306	285	83
6	500	608	346	1,820	1,160	397	121	1,190	488	324	288	82
7	432	542	883	1,460	848	1,030	122	853	421	121	150	79
8	429	281	1,850	1,130	769	1,250	126	610	344	114	101	80
9	501	207	1,770	989	612	1,290	135	523	238	106	112	81
10	571	207	814	1,070	525	1,170	331	449	584	106	112	78
11	562	176	189	75	525	1,030	1,160	446	315	162	112	76
12	552	103	127	80	525	2,240	1,200	2,030	229	194	173	76
13	546	71	238	92	525	4,350	1,180	3,390	174	157	171	76
14	543	70	340	52	620	3,550	964	1,430	141	106	102	74
15	398	70	388	62	769	2,130	540	1,040	91	76	90	74
16	265	70	434	1,820	769	1,470	441	722	238	58	90	171
17	262	145	388	7,500	1,510	1,900	987	580	417	73	90	319
18	260	202	421	7,730	1,780	2,130	916	747	417	86	90	319
19	256	167	244	6,520	1,160	1,900	546	706	269	88	90	318
20	252	111	260	4,710	583	3,550	438	495	166	88	90	173
21	243	108	380	2,220	62	4,560	318	808	178	88	90	70
22	107	107	670	616	58	2,400	312	546	1,020	88	90	69
23	104	197	857	466	724	4,960	597	1,810	1,110	88	82	55
24	103	372	857	533	1,070	4,610	1,160	824	466	88	82	59
25	103	372	851	932	1,380	3,190	1,150	588	378	88	81	68
26	103	509	2,640	1,940	1,530	1,100	775	164	108	88	80	67
27	102	515	2,270	2,880	1,010	1,250	470	282	64	90	82	50
28	83	72	4,100	2,580	599	1,220	418	387	1,630	90	86	67
29	61	2,220	3,380	2,250	------	713	343	235	2,740	90	88	65
30	275	6,440	2,310	1,780	------	574	381	253	1,700	102	86	54
31	718	------	1,650	1,510	------	713	------	508	------	127	86	------
TOTAL	10,557	15,840	37,620	67,637	26,206	56,682	17,087	24,362	23,756	4,858	3,564	3,139
MEAN	341	528	1,214	2,182	936	1,828	570	786	792	157	115	105
MAX	718	6,440	5,460	7,730	2,170	4,960	1,200	3,390	3,030	682	288	319
MIN	61	70	127	52	58	176	96	164	64	58	80	50
(*)	-198	+355	-307	-42	-7	+19	+421	+4	-2	0	-10	-2
MEAN‡	143	883	907	2,140	929	1,847	991	790	790	157	105	103
CFSM‡	.36	2.25	2.31	5.46	2.37	4.71	2.53	2.02	2.02	.40	.27	.26
IN‡	.42	2.51	2.67	6.30	2.47	5.43	2.82	2.32	2.25	.46	.31	.29

CAL YR 1973 TOTAL 203,145 MEAN 557 MAX 6,440 MIN 25 MEAN‡ 562 CFSM‡ 1.43 IN‡ 19.46
WTR YR 1974 TOTAL 291,308 MEAN 798 MAX 7,730 MIN 50 MEAN‡ 816 CFSM‡ 2.08 IN‡ 28.25

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN FISHTRAP LAKE.
‡ ADJUSTED FOR CHANGE IN CONTENTS.

03208500 RUSSELL FORK AT HAYSI, VA.

LOCATION.--Lat 37°12'25", long 82°17'45", Dickenson County, on right bank 180 ft (55 m) downstream from highway bridge at Haysi and 700 ft (213 m) downstream from McClure River.

DRAINAGE AREA.--286 mi² (741 km²).

PERIOD OF RECORD.--July 1926 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,237.61 ft (377.224 m) above mean sea level. Prior to Dec. 21, 1939, nonrecording gage at highway bridge 180 ft (55 m) upstream at same datum.

AVERAGE DISCHARGE.--48 years, 328 ft³/s or 9.289 m³/s (15.57 in/yr or 395 mm/yr).

EXTREMES.--Current year: Maximum discharge, 22,100 ft³/s (626 m³/s) Jan. 11 (gage height, 16.21 ft or 4.941 m), from rating curve extended as explained below; minimum, 16 ft³/s (0.45 m³/s) Oct. 26, 27 (gage height, 1.77 ft or 0.539 m).

Period of record: Maximum discharge, 46,600 ft³/s (1,320 m³/s) Jan. 29, 1957 (gage height, 23.17 ft or 7.062 m), from rating curve extended above 12,200 ft³/s (346 m³/s) on basis of slope-area measurements at gage heights 13.1 ft (3.99 m) and 23.17 ft (7.062 m); minimum observed, 0.2 ft³/s (0.006 m³/s) June 27, 28, 1936.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1003: 1926-43. WSP 1385: 1928(M), 1929, 1933(M), 1935(M), 1937-38(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	170	323	2,710	469	262	595	150	229	310	34	77
2	95	142	233	1,350	625	249	572	194	1,870	222	27	89
3	73	115	191	1,410	1,010	229	479	565	613	170	52	64
4	51	91	157	2,450	786	213	2,300	625	358	140	244	60
5	40	222	170	1,500	572	203	1,800	490	240	131	134	51
6	32	215	153	867	474	255	930	607	194	142	77	41
7	26	145	123	631	415	722	631	544	176	111	62	43
8	136	117	107	475	368	785	561	434	216	95	75	43
9	187	98	107	994	309	613	743	368	286	91	60	82
10	102	84	107	1,880	256	495	724	304	173	79	55	359
11	70	66	99	13,600	244	505	613	256	128	75	51	232
12	51	56	87	3,170	233	1,920	516	2,340	107	59	55	137
13	41	51	115	1,200	240	3,350	454	1,860	93	58	41	123
14	36	49	206	764	318	1,260	394	800	79	53	34	115
15	32	48	203	578	365	764	352	515	73	49	29	77
16	29	68	200	464	771	1,030	291	378	304	49	33	58
17	27	93	184	383	1,740	1,350	260	285	178	48	51	49
18	24	79	148	318	922	953	233	240	115	34	75	40
19	22	73	150	282	669	1,030	216	248	91	37	68	46
20	22	64	153	260	527	2,410	203	203	92	43	51	29
21	21	77	449	265	394	7,030	184	175	100	48	40	34
22	20	191	516	240	722	3,040	178	161	2,020	41	32	51
23	19	170	424	226	953	1,240	244	256	1,150	34	26	40
24	19	139	347	295	709	785	209	226	487	33	24	30
25	18	125	358	1,130	555	553	187	176	299	33	22	25
26	16	229	7,010	1,500	424	454	176	153	217	40	20	23
27	17	5,800	3,140	1,360	352	389	167	142	234	154	21	24
28	33	6,210	985	962	309	347	161	123	1,250	57	21	25
29	209	1,120	619	953	------	315	153	112	830	39	32	24
30	197	506	649	786	------	464	148	170	485	94	40	23
31	213	------	822	595	------	578	------	176	------	58	107	------
TOTAL	1,940	16,613	18,545	43,598	15,742	33,921	14,579	13,282	12,687	2,651	1,703	2,102
MEAN	62.6	554	598	1,406	562	1,094	486	428	423	85.5	54.9	70.1
MAX	213	6,210	7,010	13,600	1,740	7,030	2,300	2,340	2,020	310	244	359
MIN	16	48	87	226	233	203	148	112	73	33	20	23
CFSM	.22	1.94	2.09	4.92	1.97	3.83	1.71	1.50	1.48	.30	.19	.25
IN	.25	2.16	2.41	5.67	2.05	4.41	1.91	1.73	1.65	.34	.22	.27

CAL YR 1973 TOTAL 140,589 MEAN 385 MAX 13,400 MIN 13 CFSM 1.35 IN 18.29
WTR YR 1974 TOTAL 177,463 MEAN 486 MAX 13,600 MIN 16 CFSM 1.70 IN 23.09

PEAK DISCHARGE (BASE, 4,500 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1730	9.13	8,320	3-13	0100	7.19	5,200
11-28	0700	10.60	10,800	3-21	1430	12.88	15,000
12-26	1300	10.68	11,000	5-12	1700	7.10	5,060
1-11	1100	16.21	22,100				

03208700 NORTH FORK POUND RIVER AT POUND, VA.

LOCATION.--Lat 37°07'32", long 82°37'36", Wise County, on right bank at Pound, 700 ft (213 m) downstream from Stacy Branch, 1,600 ft (488 m) downstream from North Fork Pound River Dam, and 0.9 mi (1.4 km) upstream from confluence with South Fork.

DRAINAGE AREA.--18.5 mi^2 (47.9 km^2).

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,500.00 ft (457.200 m) above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1965, on left bank at datum 44.88 ft (13.679 m) higher.

AVERAGE DISCHARGE.--13 years, 29.4 ft^3/s or 0.833 m^3/s (21.58 in/yr or 548 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 396 ft^3/s (11.2 m^3/s) Dec. 26 (gage height, 51.84 ft or 15.801 m); minimum, 1.6 ft^3/s (0.045 m^3/s) Feb. 11 (gage height, 48.10 ft or 14.661 m); minimum daily, 2.7 ft^3/s (0.076 m^3/s) June 15.

Period of record: Maximum discharge, 4,480 ft^3/s (127 m^3/s) Mar. 12, 1963 (gage height, 61.58 ft or 18.770 m, present datum), from rating curve extended above 650 ft^3/s (18.4 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.02 ft^3/s (0.001 m^3/s) Sept. 16, 1964, Aug. 11, 12, Oct. 28, Nov. 10, 1969; minimum daily, 0.04 ft^3/s (0.001 m^3/s) Sept. 15, 1964, Aug. 11, 1969; minimum gage height, 47.66 ft (14.527 m) Sept. 16, 1964, present datum.

Flood of Jan. 29, 1957, reached a stage of about 63.9 ft (19.48 m), present datum, from Corps of Engineers floodmark.

REMARKS.--Records good. Flow regulated since August 1966 by North Fork Pound River Lake (see sta 03208680). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	31	314	151	36	21	18	15	49	13	3.5	35
2	22	26	247	124	86	19	8.8	16	112	6.7	3.5	82
3	16	18	221	103	141	19	8.4	68	242	3.5	4.7	54
4	16	18	150	162	144	14	19	90	177	3.3	7.0	33
5	14	45	93	140	66	12	64	88	73	3.9	9.9	24
6	12	48	27	72	46	23	81	52	20	8.4	12	23
7	12	30	19	53	48	58	49	33	18	8.1	39	23
8	13	20	15	38	24	68	51	26	9.9	8.1	52	23
9	18	22	15	81	24	47	130	26	6.4	8.1	43	16
10	20	20	15	80	23	33	145	26	6.4	8.1	23	17
11	14	17	12	74	17	34	102	25	6.4	8.1	23	23
12	12	14	8.4	34	17	121	44	77	6.4	8.1	19	35
13	11	12	40	6.7	22	237	28	169	5.2	8.1	7.7	38
14	10	12	52	186	24	169	29	158	3.7	8.1	5.8	30
15	10	12	51	333	22	68	29	102	2.7	4.9	4.7	19
16	10	17	37	290	24	83	29	52	3.1	3.7	4.2	6.0
17	10	18	30	228	27	99	36	15	3.7	3.3	4.4	3.2
18	11	18	22	182	31	103	38	15	5.2	3.5	7.4	3.0
19	11	20	18	83	42	109	31	21	5.2	3.7	18	3.0
20	10	22	19	44	44	153	29	23	5.2	3.5	32	2.9
21	11	54	20	38	36	168	21	23	6.1	3.5	30	3.2
22	10	82	27	31	54	216	15	23	183	3.5	19	3.2
23	10	46	31	21	67	219	36	36	232	3.5	10	3.0
24	12	20	31	27	66	153	63	36	104	3.5	3.7	3.0
25	13	20	41	88	65	105	71	28	40	3.5	3.7	3.0
26	13	44	181	144	50	40	57	24	28	3.7	3.5	3.0
27	13	95	92	126	26	26	36	19	20	3.9	3.5	3.0
28	32	41	148	122	26	26	25	18	21	3.5	3.9	3.2
29	41	172	146	141	------	26	15	18	23	3.7	4.7	3.2
30	34	328	145	94	------	32	15	18	22	3.9	8.4	3.2
31	32	------	148	45	------	35	------	31	------	3.5	15	------
TOTAL	495	1,342	2,415.4	3,341.7	1,300	2,535	1,323.2	1,371	1,439.6	165.9	429.2	526.1
MEAN	15.6	44.7	77.9	108	46.4	81.8	44.1	44.2	48.0	5.35	13.8	17.5
MAX	41	328	314	333	144	237	145	169	242	13	52	82
MIN	10	12	8.4	6.7	17	12	8.4	15	2.7	3.3	3.5	2.9
(*)	-11	+21	-28	-1	0	+5	+16	+1	-1	0	+2	-1
MEAN♦	4.60	65.7	49.9	107	46.4	86.8	60.1	45.2	47.0	5.35	15.8	16.5
CFSM♦	.25	3.55	2.70	5.78	2.51	4.69	3.25	2.44	2.54	.29	.85	.89
IN♦	.29	3.96	3.11	6.66	2.61	5.41	3.63	2.81	2.33	.33	.98	.99

CAL YR 1973 TOTAL 12,173.2 MEAN 33.4 MAX 328 MIN 1.9 MEAN♦ 33.4 CFSM♦ 1.81 IN♦ 24.35
WTR YR 1974 TOTAL 16,675.1 MEAN 45.7 MAX 333 MIN 2.7 MEAN♦ 45.7 CFSM♦ 2.47 IN♦ 33.61

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN NORTH FORK POUND RIVER LAKE; FURNISHED BY CORPS OF ENGINEERS.

♦ ADJUSTED FOR CHANGE IN CONTENTS.

03208800 POUND RIVER ABOVE INDIAN CREEK, AT POUND, VA.

LOCATION.--Lat 37°07'26", long 82°36'29", Wise County, on left bank at Pound 1,600 ft (488 m) downstream from confluence of North and South Forks, 2,400 ft (732 m) upstream from bridge on U.S. Highway 23, and 3,800 ft (1,160 m) upstream from Indian Creek.

DRAINAGE AREA.--36.7 mi^2 (95.1 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,535.64 ft (468.063 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 58.0 ft^3/s or 1.643 m^3/s (21.46 in/yr or 545 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 1,480 ft^3/s (41.9 m^3/s) Jan. 11 (gage height, 11.20 ft or 3.414 m), from rating curve extended above 970 ft^3/s (27.5 m^3/s); minimum, 7.0 ft^3/s (0.20 m^3/s) Oct. 1, Aug. 1, 2 (gage height, 2.90 ft or 0.884 m); minimum daily, 7.5 ft^3/s (0.21 m^3/s) Aug. 1.

Period of record: Maximum discharge, 2,520 ft^3/s (71.4 m^3/s) Mar. 7, 1967 (gage height, 15.67 ft or 4.776 m), from rating curve extended above 970 ft^3/s (27.5 m^3/s); minimum, 0.40 ft^3/s (0.011 m^3/s) Oct. 6, 1965, July 4, 5, 1966; minimum daily, 0.50 ft^3/s (0.014 m^3/s) July 2-4, 1966; minimum gage height, 2.47 ft (0.753 m) Aug. 18, 1967.

Floods of Jan. 29, 1957, and Mar. 12, 1963, reached stages of 25.7 ft (7.83 m) and 21.2 ft (6.46 m), respectively, from information by local resident.

REMARKS.--Records good. Some regulation since August 1966 by North Fork Pound River Lake 1.4 mi (2.3 km) upstream (see sta 03208680). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	53	370	278	83	49	105	34	89	25	7.5	50
2	28	41	295	208	212	43	97	41	576	18	7.8	96
3	22	29	263	201	290	41	81	157	335	14	50	69
4	21	27	185	302	224	34	315	160	178	12	52	47
5	19	73	130	236	132	30	230	142	59	48	30	34
6	16	71	55	146	96	62	158	106	47	31	45	33
7	16	47	50	112	93	129	105	77	41	20	75	32
8	32	34	41	83	61	129	128	62	30	18	79	30
9	30	33	40	185	56	97	214	58	23	17	62	32
10	28	29	36	220	52	75	215	55	20	17	35	43
11	21	26	30	956	44	93	161	50	18	17	34	59
12	18	22	24	215	40	292	94	252	18	15	30	54
13	16	20	89	104	44	450	74	271	16	15	17	55
14	15	20	129	257	51	260	69	211	14	14	14	45
15	15	20	109	397	50	130	66	128	11	11	12	30
16	14	27	83	340	66	172	60	60	21	11	13	15
17	14	26	67	263	83	190	65	41	13	9.4	16	11
18	13	26	51	190	82	169	65	42	14	8.6	31	10
19	13	27	43	89	88	199	56	65	13	9.4	44	9.3
20	13	28	48	63	67	268	52	51	21	9.4	51	8.6
21	13	79	71	59	72	760	41	45	30	9.0	50	13
22	13	113	75	50	136	402	34	42	590	8.2	32	11
23	13	70	75	44	149	307	97	70	318	8.2	21	9.3
24	15	38	70	68	130	207	113	62	144	8.2	12	8.6
25	15	36	92	190	113	154	109	49	72	8.2	11	8.6
26	15	96	572	264	89	41	91	42	54	9.4	11	8.3
27	15	794	266	241	59	61	63	35	42	12	10	8.6
28	46	626	223	232	57	63	50	31	43	8.2	9.8	9.8
29	56	303	202	255	------	59	34	30	39	8.6	16	9.6
30	52	402	204	176	------	132	33	40	35	11	16	9.1
31	57	------	226	106	------	159	------	62	------	7.8	23	------
TOTAL	709	3,236	4,214	6,530	2,744	5,247	3,075	2,571	2,924	439.6	917.1	960.8
MEAN	22.9	108	136	211	98.0	171	103	82.9	97.5	14.2	29.6	28.7
MAX	56	794	572	956	290	760	315	271	590	48	79	96
MIN	13	20	24	44	40	30	33	30	11	7.8	7.5	9.1
(*)	-11	+21	-28	-1	0	+5	+16	+1	-1	0	+2	-1
MEAN#	11.9	129	108	210	98.0	176	119	83.9	96.5	14.2	31.6	27.7
CFSM#	.32	3.51	2.94	5.72	2.67	4.80	3.24	2.29	2.63	.39	.86	.75
IN#	.37	3.92	3.39	6.60	2.78	5.53	3.62	2.64	2.93	.45	.99	.84

CAL YR 1973 TOTAL 24,172.5 MEAN 66.2 MAX 857 MIN 5.9 MEAN# 66.2 CFSM# 1.80 IN# 24.42
WTR YR 1974 TOTAL 33,517.5 MEAN 91.8 MAX 956 MIN 7.5 MEAN# 91.8 CFSM# 2.50 IN# 34.06

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN NORTH FORK POUND RIVER LAKE; FURNISHED BY CORPS OF ENGINEERS.

# ADJUSTED FOR CHANGE IN CONTENTS.

03208850 POUND RIVER BELOW BOLD CAMP CREEK, AT POUND, VA.

LOCATION.--Lat 37°07'19", long 82°35'55", Wise County, on left bank at Pound, 1,000 ft (305 m) upstream from bridge on State Highway 83, 1,500 ft (457 m) downstream from Bold Camp Creek, and 2,500 ft (762 m) downstream from Indian Creek.

DRAINAGE AREA.--61.2 mi² (158.5 km²).

PERIOD OF RECORD.- October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,527.36 ft (465.539 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 94.5 ft³/s or 2.676 m³/s (20.97 in/yr or 533 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 2,760 ft³/s (78.2 m³/s) Jan. 11 (gage height, 16.62 ft or 5.066 m); minimum, 11 ft³/s (0.31 m³/s) Oct. 1 (gage height, 3.48 ft or 1.061 m); minimum daily, 14 ft³/s (0.40 m³/s) Aug. 1.

Period of record: Maximum discharge, 4,570 ft³/s (129 m³/s) Mar. 7, 1967 (gage height, 21.51 ft or 6.556 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s); minimum, 1.0 ft³/s (0.028 m³/s) July 27, 28, 1966 (gage height, 3.04 ft or 0.927 m); minimum daily, 1.3 ft³/s (0.037 m³/s) July 4, 27, 1966.

Floods of Jan. 29, 1957, and Mar. 12, 1963, reached stages or about 30.8 ft (9.39 m) and 28.2 ft (8.60 m), respectively, from floodmarks.

REMARKS.--Records good. Some regulation since August 1966 by North Fork Pound River Lake 2.6 mi (4.2 km) upstream (see sta 03208680).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	79	445	471	136	75	169	56	147	42	14	59
2	35	51	352	318	378	69	169	75	1,040	33	16	104
3	33	44	321	330	478	65	139	253	471	26	89	40
4	24	39	220	521	351	57	696	230	241	25	123	57
5	20	115	170	374	204	53	384	209	105	99	54	44
6	22	103	57	230	150	102	248	164	79	54	95	42
7	22	67	72	175	145	189	168	122	72	35	116	42
8	55	50	62	133	111	187	202	97	50	31	102	39
9	52	46	51	298	95	142	307	88	54	29	79	97
10	43	41	57	456	83	109	300	82	45	27	50	135
11	31	35	49	1,860	76	157	223	75	40	32	49	115
12	26	32	41	459	68	492	149	417	35	27	44	85
13	23	30	148	220	72	715	118	396	30	24	29	75
14	23	29	185	356	63	390	111	287	26	23	23	62
15	22	30	152	514	81	195	103	171	25	20	20	45
16	21	42	115	442	125	275	90	90	111	21	34	29
17	20	36	93	351	152	290	92	66	40	17	45	26
18	20	35	73	251	135	242	91	66	27	16	60	22
19	20	37	64	134	135	325	82	96	25	18	70	20
20	19	38	74	104	127	440	77	72	30	19	56	19
21	19	115	112	97	102	1,360	64	63	36	15	52	30
22	19	154	105	92	230	652	57	60	1,010	15	44	24
23	19	98	106	77	230	449	151	110	451	15	31	19
24	21	55	99	120	190	302	151	83	192	15	21	16
25	21	55	113	325	159	217	144	67	107	15	19	18
26	21	198	1,070	464	127	132	122	56	40	41	18	17
27	21	1,490	472	405	90	108	89	51	58	50	18	17
28	74	1,170	323	381	85	108	74	45	59	18	18	20
29	98	431	279	419	------	99	57	45	59	17	28	18
30	89	490	283	273	------	197	54	68	53	42	28	15
31	51	------	342	173	------	232	------	97	------	16	38	------
TOTAL	1,079	5,253	6,157	10,809	4,398	8,429	4,881	3,862	4,828	877	1,503	1,365
MEAN	34.8	175	199	349	157	272	163	125	151	28.3	48.5	45.2
MAX	98	1,490	1,070	1,860	478	1,360	696	417	1,040	99	123	135
MIN	19	29	41	77	68	53	54	45	25	15	14	15
(*)	-11	+21	-28	-1	0	+5	+16	+1	-1	0	+2	-1
MEAN♦	23.8	196	171	348	157	277	179	126	160	28.3	50.5	45.2
CFSM♦	.39	3.20	2.79	5.69	2.57	4.53	2.92	2.06	2.61	.46	.83	.74
IN♦	.45	3.57	3.22	6.56	2.68	5.22	3.26	2.38	2.91	.53	.96	.83

CAL YR 1973 TOTAL 39,158.3 MEAN 107 MAX 1,560 MIN 7.5 MEAN♦ 107 CFSM♦ 1.75 IN♦ 23.74
WTR YR 1974 TOTAL 53,461.0 MEAN 146 MAX 1,860 MIN 14 MEAN♦ 146 CFSM♦ 2.39 IN♦ 32.57

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN NORTH FORK POUND RIVER LAKE; FURNISHED BY CORPS OF ENGINEERS.

♦ ADJUSTED FOR CHANGE IN CONTENTS.

03208900 POUND RIVER NEAR GEORGES FORK, VA.

LOCATION.--Lat 37°09'51", long 82°31'30", Dickenson County, on right bank 50 ft (15 m) upstream from bridge on State Highway 624, 150 ft (46 m) upstream from Camp Creek, and 2.6 mi (4.2 km) northwest of the community of Georges Fork.

DRAINAGE AREA.--82.5 mi^2 (213.7 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,470.39 ft (448.175 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 125 ft^3/s or 3.540 m^3/s (20.58 in/yr or 523 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 4,560 ft^3/s (129 m^3/s) Jan. 11 (gage height, 10.05 ft or 3.063 m); minimum, 14 ft^3/s (0.40 m^3/s) Oct. 1; minimum daily, 16 ft^3/s (0.45 m^3/s) Oct. 1; minimum gage height, 2.39 ft (0.728 m) Aug. 2.

Period of record: Maximum discharge, 6,870 ft^3/s (195 m^3/s) Mar. 7, 1967 (gage height, 12.06 ft or 3.676 m); minimum, 1.6 ft^3/s (0.045 m^3/s) Sept. 17, 18, 1964 (gage height, 1.80 ft or 0.549 m); minimum daily, 1.7 ft^3/s (0.048 m^3/s) Sept. 17, 1964.

Floods of Jan. 29, 1957, and Mar. 12, 1963, reached stages of 16.2 ft (4.94 m) and 14.4 ft (4.39 m), respectively, from information by local residents.

REMARKS.--Records good. Some regulation since August 1966 by North Fork Pound River Lake 13 mi (21 km) upstream (see sta 03208680).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	119	539	680	178	109	264	76	176	56	19	89
2	45	93	408	421	457	99	245	91	1,250	50	17	204
3	37	57	373	383	706	92	210	285	617	38	137	169
4	31	44	261	678	456	83	944	249	340	33	190	116
5	27	157	224	500	279	72	574	241	152	56	122	84
6	22	145	120	289	194	123	345	227	115	155	61	70
7	20	90	100	212	190	265	225	162	112	59	237	68
8	92	64	86	153	143	259	255	135	102	47	168	59
9	86	49	84	340	127	205	461	122	96	42	154	140
10	71	49	79	552	114	156	411	113	55	39	77	296
11	45	36	70	3,000	108	194	301	102	54	37	65	291
12	31	36	55	806	98	545	210	565	47	33	70	190
13	28	32	140	337	100	1,010	181	561	42	35	45	158
14	26	33	242	366	113	538	146	393	38	31	30	131
15	26	35	199	582	112	270	149	255	34	29	26	100
16	23	68	152	511	143	343	127	160	100	28	27	58
17	22	56	132	375	200	402	122	120	49	26	69	45
18	20	51	108	303	181	327	123	109	37	20	58	39
19	21	52	93	163	176	480	108	150	33	21	155	34
20	21	56	79	129	175	747	101	123	38	27	96	31
21	20	141	168	124	144	1,890	88	110	48	22	108	38
22	20	263	161	106	263	943	79	104	1,550	17	64	50
23	20	176	158	102	311	587	154	144	643	19	44	32
24	20	107	148	139	253	382	173	145	273	20	29	27
25	22	97	149	422	210	274	187	115	135	19	23	26
26	22	208	1,400	626	174	179	149	105	107	15	21	25
27	22	2,450	749	567	128	139	114	95	92	109	21	24
28	66	1,950	410	473	119	135	103	83	134	30	28	32
29	170	613	322	543	------	129	78	80	109	22	48	28
30	133	604	345	371	------	242	72	124	96	70	56	26
31	125	------	407	233	------	343	------	160	------	25	99	------
TOTAL	1,350	7,931	7,989	14,485	5,852	11,561	6,679	5,594	6,642	1,264	2,364	2,680
MEAN	43.5	264	258	467	209	373	223	180	223	40.8	76.3	89.3
MAX	170	2,450	1,400	3,000	706	1,890	944	565	1,550	155	237	296
MIN	16	32	55	102	98	72	72	75	33	15	17	24
(*)	-11	+21	-28	-1	0	+5	+16	+1	-1	0	+2	-1
MEAN‡	32.5	285	230	466	209	378	239	181	222	40.8	78.3	88.3
CFSM‡	.39	3.45	2.79	5.65	2.53	4.58	2.90	2.19	2.69	.49	.95	1.07
IN‡	.45	3.85	3.22	6.51	2.64	5.28	3.24	2.52	3.00	.56	1.10	1.19

CAL YR 1973 TOTAL 55,041.5 MEAN 151 MAX 2,470 MIN 5.2 MEAN‡ 151 CFSM‡ 1.83 IN‡ 24.79
WTR YR 1974 TOTAL 74,421.0 MEAN 204 MAX 3,000 MIN 15 MEAN‡ 204 CFSM‡ 2.47 IN‡ 33.56

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN NORTH FORK POUND RIVER LAKE; FURNISHED BY CORPS OF ENGINEERS.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

03208950 CRANES NEST RIVER NEAR CLINTWOOD, VA.

LOCATION.--Lat 37°07'26", long 82°26'20", Dickenson County, on left bank 500 ft (152 m) downstream from Clinchfield Railway bridge, 1,000 ft (305 m) downstream from Rush Creek, and 2.1 mi (3.4 km) southeast of Clintwood.

DRAINAGE AREA.--66.5 mi^2 (172.2 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,440.30 ft (439.003 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 81.9 ft^3/s or 2.319 m^3/s (16.72 in/yr or 425 mm/yr).

EXTREMES.--Current year: Maximum discharge, 4,220 ft^3/s (120 m^3/s) Jan. 11 (gage height, 14.54 ft or 4.432 m); minimum, 5.8 ft^3/s (0.16 m^3/s) Oct. 7, 8, 27 (gage height, 1.33 ft or 0.405 m).

Period of record: Maximum discharge, 7,120 ft^3/s (202 m^3/s) Mar. 7, 1967 (gage height, 19.86 ft or 6.053 m); minimum, 0.5 ft^3/s (0.014 m^3/s) Sept. 28, 1964 (gage height, 0.91 ft or 0.277 m).

Flood of Jan. 29, 1957, reached a stage of about 20.0 ft (6.10 m).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	46	99	538	120	74	135	43	52	40	11	37
2	13	31	73	263	214	69	147	61	1,010	35	9.9	35
3	12	23	61	310	287	62	132	245	208	28	130	27
4	9.6	19	53	460	201	55	543	188	110	25	172	25
5	7.4	45	70	313	146	53	345	147	73	24	66	19
6	6.5	38	51	207	123	85	207	176	57	24	35	17
7	6.0	27	44	159	109	211	148	133	61	21	35	21
8	144	22	39	120	98	175	158	105	46	19	29	15
9	63	19	60	263	82	139	203	87	39	17	26	52
10	50	15	36	495	70	113	171	75	32	16	21	107
11	24	12	33	2,630	69	154	143	66	27	17	23	89
12	18	11	29	507	65	405	123	484	24	19	21	43
13	14	11	55	269	67	555	110	325	22	13	17	41
14	12	11	115	191	106	259	95	167	20	12	15	27
15	11	10	91	151	104	174	90	113	18	10	14	21
16	10	31	74	123	219	247	72	84	125	11	17	17
17	9.1	22	52	104	311	260	67	67	41	9.4	35	15
18	9.1	19	48	88	195	200	61	56	28	9.5	29	13
19	8.1	17	46	82	155	244	56	66	23	9.4	40	11
20	7.9	16	49	74	128	347	50	49	26	13	24	10
21	7.6	44	97	78	97	1,600	48	41	28	9.7	21	27
22	7.1	79	56	68	256	539	46	39	663	8.0	18	18
23	6.8	51	85	66	239	277	98	95	243	7.7	15	12
24	6.6	40	79	111	175	191	70	61	121	8.6	13	11
25	6.3	35	81	338	136	141	63	45	74	9.6	12	10
26	6.3	142	1,450	341	107	119	57	37	51	24	10	9.8
27	6.1	1,810	579	299	91	101	53	35	56	150	9.6	9.1
28	23	1,560	233	253	82	93	49	30	94	24	13	11
29	51	300	152	261	------	85	45	25	59	15	19	11
30	37	151	143	196	------	134	42	56	52	51	25	9.8
31	36	------	229	151	------	145	------	51	------	15	49	------
TOTAL	636.5	4,655	4,471	9,630	4,052	7,325	3,627	3,262	3,728	704.9	974.5	771.7
MEAN	20.5	155	144	311	145	235	121	105	124	22.7	31.4	25.7
MAX	144	1,810	1,450	2,630	311	1,600	543	484	1,010	150	172	107
MIN	6.0	10	29	66	65	53	42	25	18	7.7	9.6	9.8
CFSM	.31	2.33	2.17	4.68	2.18	3.55	1.82	1.58	1.86	.34	.47	.39
IN	.35	2.60	2.50	5.39	2.27	4.10	2.03	1.82	2.09	.39	.55	.43

CAL YR 1973 TOTAL 34,227.4 MEAN 93.8 MAX 2,750 MIN 4.5 CFSM 1.41 IN 19.15
WTR YR 1974 TOTAL 43,840.5 MEAN 120 MAX 2,630 MIN 6.0 CFSM 1.80 IN 24.52

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-27	1400	11.02	2,500	3-21	1330	13.46	3,680
11-28	0600	11.86	2,880	6- 2	0330	10.56	2,310
12-26	1800	9.98	2,080	6-22	1200	8.75	1,650
1-11	1030	14.54	4,220				

03209000 POUND RIVER BELOW FLANNAGAN DAM, NEAR HAYSI, VA.

LOCATION.--Lat 37°14'13", long 82°20'36", Dickenson County, on right bank 1,100 ft (335 m) upstream from Blacklog Branch, 1,700 ft (518 m) downstream from John W. Flannagan Dam, 1.4 mi (2.3 km) upstream from mouth, and 3.4 mi (5.5 km) northwest of Haysi.

DRAINAGE AREA.--221 mi² (572 km²).

PERIOD OF RECORD.--July 1926 to current year. Prior to October 1960, published as Pound River near Haysi. Monthly discharge only for some periods, published in WSP 1305.

GAGE.--Water-stage recorder. Datum of gage is 1,200.00 ft (365.760 m) above mean sea level (Corps of Engineers bench mark). Prior to Dec. 20, 1939, nonrecording gage at site 3.8 mi (6.1 km) upstream at different datum. Dec. 20, 1939, to Sept. 30, 1963, water-stage recorder at site 4.6 mi (7.4 km) upstream at datum 79.91 ft (24.357 m) higher.

AVERAGE DISCHARGE.--48 years, 273 ft³/s or 7.731 m³/s (16.78 in/yr or 426 mm/yr), adjusted for storage since March 1965.

EXTREMES.--Current year: Maximum discharge, 4,010 ft³/s (114 m³/s) Nov. 29 (gage height, 7.76 ft or 2.365 m); minimum, 30 ft³/s (0.85 m³/s) Jan. 10-14 (gage height, 1.98 ft or 0.604 m); minimum daily, 30 ft³/s (0.85 m³/s) Jan. 11-13.

Period of record: Maximum discharge, about 30,000 ft³/s (850 m³/s) Mar. 23, 1929 (gage height, 16.5 ft or 5.03 m, from floodmarks, site and datum then in use); minimum, less than 0.1 ft³/s (0.003 m³/s) on several days in September 1932.

REMARKS.--Records good. Flow regulated since March 1965 by John W. Flannagan Reservoir 1,700 ft (518 m) upstream (see sta 03208990) and since August 1966 by North Fork Pound River Lake 33 mi (53 km) upstream (see sta 03208680). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 953: 1940-41. WSP 1003: 1942, 1943(P). WSP 1275: 1927-30, 1931(M), 1932-39.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	279	3,770	1,440	462	204	177	157	272	224	75	55
2	201	278	3,420	1,340	855	108	77	183	953	170	76	116
3	201	279	1,680	967	1,630	330	81	529	2,200	122	158	250
4	201	237	432	1,870	1,090	249	63	770	1,460	104	388	191
5	201	314	323	1,450	688	170	50	584	662	70	388	140
6	185	486	284	830	459	177	50	584	294	163	172	83
7	152	263	200	479	398	536	50	425	193	173	144	83
8	183	47	157	445	398	713	51	118	172	122	201	83
9	316	47	137	622	392	560	183	247	172	124	201	83
10	316	47	137	997	238	379	690	487	172	86	190	365
11	229	47	138	30	235	409	776	174	120	72	99	608
12	192	216	116	30	232	1,140	567	1,400	77	74	74	457
13	192	223	105	30	231	2,300	456	1,520	77	74	74	346
14	161	193	392	1,860	252	1,190	402	728	77	74	74	166
15	148	192	458	129	295	745	402	547	79	66	74	127
16	148	95	374	1,230	342	722	384	294	219	50	74	111
17	148	50	316	3,860	769	1,020	340	201	250	50	74	74
18	148	137	221	3,900	580	860	282	201	102	50	92	69
19	148	312	179	3,110	472	916	222	201	56	51	150	56
20	133	220	179	1,080	490	1,770	224	202	57	50	191	56
21	101	150	274	338	374	815	225	204	58	50	163	56
22	119	433	319	241	491	1,630	204	204	2,170	50	130	56
23	154	487	319	179	740	2,080	267	218	2,230	50	86	56
24	154	376	319	227	648	2,060	351	268	632	50	66	56
25	154	326	319	1,670	480	2,040	352	246	387	50	53	56
26	154	490	230	1,610	413	1,050	321	178	282	50	82	56
27	154	397	1,470	1,430	299	151	242	114	109	59	116	89
28	183	52	2,910	1,020	299	254	201	77	329	119	116	111
29	253	1,810	2,460	1,020	-------	402	187	77	647	102	77	111
30	298	3,840	1,190	895	-------	402	157	171	328	75	55	108
31	320	-------	914	608	-------	402	-------	229	-------	75	55	------
TOTAL	5,817	12,323	23,742	34,337	14,252	25,783	8,036	11,538	14,836	2,701	3,968	4,274
MEAN	188	411	766	1,108	509	832	268	372	495	87.1	128	142
MAX	320	3,840	3,770	3,900	1,630	2,300	776	1,520	2,230	224	388	608
MIN	101	47	105	30	231	108	50	77	56	50	53	55
(*)	-122	+182	-270	-4	-2	+26	+271	+6	-3	+2	-5	-8
MEAN♦	66	593	496	1,104	507	858	539	378	492	89.1	123	134
CFSM♦	.30	2.68	2.24	5.00	2.29	3.88	2.44	1.71	2.23	.40	.56	.61
IN♦	.35	2.99	2.58	5.76	2.38	4.47	2.72	1.97	2.49	.46	.65	.68

CAL YR 1973 TOTAL 122,879 MEAN 337 MAX 3,840 MIN 13 MEAN♦ 337 CFSM♦ 1.52 IN♦ 20.65
WTR YR 1974 TOTAL 161,607 MEAN 443 MAX 3,900 MIN 30 MEAN♦ 448 CFSM♦ 2.03 IN♦ 27.50

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN NORTH FORK POUND RIVER LAKE AND JOHN W. FLANNAGAN RESERVOIR; FURNISHED BY CORPS OF ENGINEERS.

♦ ADJUSTED FOR CHANGE IN CONTENTS.

03209200 RUSSELL FORK AT BARTLICK, VA.

LOCATION.--Lat 37°14'45", long 82°19'25", Dickenson County, on left bank at Bartlick, just upstream from bridge on State Highway 611, 0.2 mi (0.3 km) downstream from Pound River, and 1.1 mi (1.8 km) upstream from Fall Branch.

DRAINAGE AREA.--526 mi^2 (1,362 km^2).

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,165.00 ft (355.092 m) above mean sea level.

AVERAGE DISCHARGE.--12 years, 679 ft^3/s or 19.23 m^3/s (17.53 in/yr or 445 mm/yr), adjusted for storage.

EXTREMES.--Current year: Maximum discharge, 20,900 ft^3/s (592 m^3/s) Jan. 11 (gage height, 17.88 ft or 5.450 m), from rating curve extended as explained below; minimum, 73 ft^3/s (2.07 m^3/s) Aug. 26 (gage height, 7.28 ft or 2.219 m); minimum daily, 78 ft^3/s (2.21 m^3/s) Aug. 25.

Period of record: Maximum discharge, 47,000 ft^3/s (1,330 m^3/s) Mar. 12, 1963 (gage height, 24.83 ft or 7.568 m), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of computation of peak flow over dam; minimum, 5.3 ft^3/s (0.15 m^3/s) Sept. 18, 1964 (gage height, 5.03 ft or 1.533 m); minimum daily, 5.5 ft^3/s (0.16 m^3/s) Sept. 17, 1964.

Flood of Jan. 29, 1957, reached a stage of about 30 ft (9.1 m), from information by local resident.

REMARKS.--Records good. Flow regulated since March 1965 by John W. Flannagan Reservoir 1.9 mi (3.1 km) upstream (see sta 03208990) and since August 1966 by North Fork Pound River Lake 35 mi (56 km) upstream (see sta 03208680).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	430	4,700	4,510	1,040	537	918	318	544	551	113	125
2	285	400	4,150	3,070	1,630	371	762	390	3,260	410	105	179
3	262	367	2,000	2,660	3,070	593	646	1,160	3,120	297	192	292
4	241	310	630	4,770	2,190	537	2,600	1,530	1,930	253	615	236
5	228	524	517	3,410	1,410	397	2,190	1,150	944	210	504	187
6	206	684	461	1,950	1,040	461	1,180	1,300	498	297	244	121
7	157	409	335	1,270	892	1,360	819	1,070	371	282	196	125
8	298	148	292	1,020	835	1,650	719	608	377	219	262	121
9	490	124	262	1,800	719	1,310	1,090	645	492	215	253	137
10	395	108	262	3,340	537	953	1,610	843	353	170	240	554
11	285	99	260	13,100	524	998	1,540	455	258	148	162	811
12	231	247	223	3,690	504	3,100	1,210	3,870	192	141	134	572
13	222	263	227	1,490	524	6,190	998	3,940	179	134	121	444
14	189	230	615	2,980	615	2,840	876	1,730	152	128	110	267
15	170	232	702	1,030	719	1,710	859	1,160	155	119	107	196
16	155	161	608	2,620	1,170	1,950	753	727	492	99	107	166
17	162	127	531	4,920	2,840	2,980	654	517	438	99	119	121
18	158	187	390	4,900	1,730	2,090	565	467	223	90	155	110
19	155	365	347	3,980	1,290	2,230	479	473	151	88	201	92
20	140	277	341	1,450	1,120	4,860	455	424	141	95	231	98
21	106	213	762	661	835	8,000	431	384	152	99	196	92
22	121	592	927	524	1,310	5,290	403	365	4,350	95	159	110
23	160	637	819	450	1,910	3,960	551	486	3,870	98	113	102
24	150	502	727	565	1,530	3,340	600	511	1,230	86	90	88
25	157	432	727	2,520	1,140	2,990	565	431	753	96	78	85
26	155	689	6,710	3,620	918	1,770	524	329	551	87	92	84
27	156	6,150	4,970	3,260	702	654	431	258	397	205	131	113
28	216	6,300	4,390	2,290	654	719	371	205	1,710	187	131	134
29	433	3,330	3,410	2,280	------	859	353	196	1,630	144	110	134
30	459	5,000	2,010	1,950	------	1,030	313	329	851	151	95	131
31	515	------	1,940	1,360	------	1,160	------	397	------	137	144	------
TOTAL	7,326	29,537	45,235	87,440	33,398	66,889	25,465	26,669	29,794	5,410	5,510	6,117
MEAN	236	985	1,459	2,821	1,193	2,158	849	860	993	175	178	204
MAX	515	6,300	6,710	13,100	3,070	8,000	2,600	3,940	4,350	551	615	811
MIN	105	99	223	450	504	371	313	196	141	86	78	84
(*)	-122	+182	-270	-4	-2	+26	+271	+6	-3	+2	-5	-8
MEAN‡	114	1,167	1,189	2,817	1,191	2,184	1,120	866	990	177	173	196
CFSM‡	.22	2.22	2.26	5.36	2.26	4.15	2.13	1.65	1.88	.34	.33	.37
IN‡	.25	2.48	2.61	6.18	2.35	4.78	2.38	1.90	2.10	.39	.38	.41

CAL YR 1973 TOTAL 273,533 MEAN 749 MAX 13,300 MIN 50 MEAN‡ 749 CFSM‡ 1.42 IN‡ 19.36
WTR YR 1974 TOTAL 368,790 MEAN 1,010 MAX 13,100 MIN 78 MEAN‡ 1,015 CFSM‡ 1.93 IN‡ 26.21

* CHANGE IN CONTENTS, EQUIVALENT IN CUBIC FEET PER SECOND, IN NORTH FORK POUND RIVER LAKE AND JOHN W. FLANNAGAN RESERVOIR; FURNISHED BY CORPS OF ENGINEERS.

‡ ADJUSTED FOR CHANGE IN CONTENTS.

RESERVOIRS IN BIG SANDY RIVER BASIN, VA.

03208680 NORTH FORK POUND RIVER LAKE.--Lat 37°07'27", long 82°37'52", Wise County, in control tower of North Fork Pound Dam at Pound, 1,200 ft (366 m) upstream from Stacy Branch, and 1.2 mi (1.9 km) upstream from South Fork Pound River. Drainage area, 17.2 mi^2 (44.5 km^2). Period of record, July 1966 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Prior to Aug. 29, 1966, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 4,550 acre-ft (5.61 hm^3) Nov. 29 (elevation, 1,618.84 ft or 493.422 m); minimum, 1,970 acre-ft (2.43 hm^3) Mar. 4 (elevation, 1,601.70 ft or 488.198 m). Extremes for period of record: Maximum contents, 4,610 acre-ft (5.68 hm^3) Apr. 30, 1970 (elevation, 1,619.13 ft or 493.511 m); minimum (after initial filling for regular operation), 1,660 acre-ft (2.05 hm^3) Jan. 23, 1969 (elevation, 1,598.62 ft or 487.259 m).

Lake is formed by rockfill dam. Spillway with crest at elevation 1,644.0 ft (501.09 m) is in a saddle 350 ft (107 m) southeast of dam. Except during major floods all discharge will be through a diversion tunnel, the invert of the entrance of which is at elevation 1,556.5 ft (474.42 m). Storage began in September 1964 during construction with peak discharge affected thereafter; initial filling for regular operation started July 13, 1966. Total capacity at elevation 1,644.0 ft or 501.09 m (top of spillway) is 11,290 acre-ft (13.9 hm^3) of which 8,110 acre-ft (10.0 hm^3) is flood-control storage for summer operations between elevations 1,611.0 ft or 491.03 m (top of summer conservation pool) and 1,644.0 ft (501.09 m); an additional 1,290 acre-ft (1.59 hm^3) between elevations 1,601.0 ft or 487.98 m (top of winter conservation pool) and 1,611.0 ft (491.03 m) is available for flood control during the period December to March; contents at established minimum pool (1,601.0 ft or 487.98 m) is 1,900 acre-ft (2.34 hm^3); dead storage is 7 acre-ft (8,630 m^3) below elevation 1,556.5 ft (474.42 m). Figures given herein represent total contents. Lake is used for flood control, low-water augmentation for water-quality control, and recreation. Capacity tables furnished by Corps of Engineers.

03208990 JOHN W. FLANNAGAN RESERVOIR.--Lat 37°14'00", long 82°20'56", Dickenson County, in control tower of John W. Flannagan Dam on Pound River, 1.3 mi (2.1 km) upstream from Blacklog Branch, and 3.7 mi (6.0 km) northwest of Haysi. Drainage area, 221 mi^2 (572 km^2). Period of record, September 1964 to current year. Gage, water-stage recorder. Datum of gage is at mean sea level (Corps of Engineers bench mark). Prior to Mar. 31, 1965, nonrecording gage at same site and datum. Extremes for current year: Maximum contents, 76,700 acre-ft (94.6 hm^3) Jan. 14 (elevation, 1,403.99 ft or 427.936 m); minimum, 50,400 acre-ft (62.1 hm^3) Jan. 6 (elevation, 1,379.79 ft or 420.560 m). Extremes for period of record: Maximum contents, 85,100 acre-ft (105 hm^3) Apr. 30, 1970 (elevation, 1,410.37 ft or 429.881 m); minimum (after initial filling for regular operation), 11,800 acre-ft (14.5 hm^3) Apr. 1, 1965 (elevation, 1,313.42 ft or 400.330 m).

Reservoir is formed by rockfill dam. Spillway with crest at elevation 1,410.0 ft (429.77 m) is in a saddle 0.3 mi (0.5 km) upstream from dam and is equipped with 6 radial gates 36 ft (11.0 m) high by 42 ft (12.8 m) wide. Except during major floods all discharge will be through a diversion tunnel, the invert of the entrance of which is at elevation 1,230.0 ft (374.90 m). Storage began in September 1961 during construction with peak discharge affected thereafter; initial filling for regular operations started in March 1965. Total capacity at elevation 1,446.0 ft or 440.74 m (top of gates) is 145,700 acre-ft (180 hm^3) of which 78,600 acre-ft (96.9 hm^3) is controlled flood storage for summer operations between elevations 1,396.0 ft or 425.50 m (top of summer conservation pool) and 1,446.0 ft (440.74 m); an additional 16,500 acre-ft (20.3 hm^3) between elevations 1,380.0 ft or 420.62 m (top of winter conservation pool) and 1,396.0 ft (425.50 m) is available for flood control during the period December to March; contents at established minimum pool (1,314.0 ft or 400.51 m) is 12,000 acre-ft (14.8 hm^3); dead storage is 300 acre-ft (370,000 m^3) below elevation 1,230.0 ft (374.90 m). Figures given herein represent total contents. Reservoir is used for flood control, low-water augmentation for water-quality control, and recreation. Capacity table furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	03208680 North Fork Pound River Lake			03208990 John W. Flannagan Reservoir		
Sept. 30	1,610.89	3,170	-	1,392.49	63,200	-
Oct. 31	1,606.22	2,510	-660	1,386.08	56,400	-6,800
Nov. 30	1,614.52	3,760	+1,250	1,395.03	66,000	+9,600
Dec. 31	1,602.43	2,050	-1,710	1,380.61	51,100	-14,900
CAL YR 1973	-	-	-60	-	-	+300
Jan. 31	1,601.87	1,990	-60	1,380.39	50,900	-200
Feb. 28	1,601.80	1,980	-10	1,380.21	50,800	-100
Mar. 31	1,604.51	2,290	+310	1,381.60	52,100	+1,300
Apr. 30	1,611.36	3,240	+950	1,396.20	67,300	+15,200
May 31	1,611.58	3,280	+40	1,396.47	67,600	+300
June 30	1,611.26	3,220	-60	1,396.36	67,500	-100
July 31	1,611.19	3,210	-10	1,396.49	67,600	+100
Aug. 31	1,611.85	3,320	+110	1,396.10	67,200	-400
Sept. 30	1,611.40	3,250	-70	1,395.73	66,800	-400
WTR YR 1974	-	-	+80	-	-	+3,600

03471500 SOUTH FORK HOLSTON RIVER AT RIVERSIDE, NEAR CHILHOWIE, VA.

LOCATION.--Lat 36°45'37", long 81°37'53", Smyth County, on right bank 400 ft (122 m) upstream from highway bridge at Riverside, 900 ft (274 m) upstream from Spring Branch, 3.2 mi (5.1 km) downstream from Redstone Branch, 4.0 mi (6.4 km) southeast of Chilhowie, and at mile 97.2.

DRAINAGE AREA.--76.1 mi² (197.1 km²).

PERIOD OF RECORD.--October 1920 to December 1931, July 1942 to current year. Monthly discharge only for some periods, published in WSP 1306. Prior to October 1924, published as "near Chilhowie". June 1907 to December 1909, at site 4.5 mi (7.2 km) downstream also published as "near Chilhowie"; records not equivalent.

GAGE.--Water-stage recorder. Datum of gage is 2,106.77 ft (642.143 m) above mean sea level. Nov. 1, 1920, to Nov. 14, 1931, nonrecording gage at site 400 ft (122 m) downstream at same datum.

AVERAGE DISCHARGE.--43 years, 110 ft³/s or 3.115 m³/s (19.63 in/yr or 499 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,100 ft³/s (87.8 m³/s) June 28 (gage height, 7.54 ft or 2.298 m); minimum, 32 ft³/s (0.91 m³/s) Aug. 20, 21, 22 (gage height, 1.41 ft or 0.430 m), due to regulation from unknown source; minimum daily, 35 ft³/s (0.99 m³/s) Oct. 26, 27, Sept. 26, 27.

Period of record: Maximum discharge, 6,000 ft³/s (170 m³/s) June 12, 1923 (gage height, 9.0 ft or 2.74 m, from graph based on gage readings, site and datum then in use), from rating curve extended above 3,600 ft³/s (102 m³/s); minimum recorded, 2 ft³/s (0.06 m³/s) Aug. 26, Oct. 15, 1943, Aug. 9, 11, 1944, Oct. 19, 1945, but may have been less in 1925 and 1926 before installation of water-stage recorder; minimum daily, 8 ft³/s (0.23 m³/s) July 19, 1926.

REMARKS.--Records good. Prior to August 1951, diurnal fluctuation at low flow caused by mill 500 ft (152 m) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1033: 1943-44(m). WSP 1306: Drainage area, 1921-31(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	83	152	922	160	164	251	90	207	255	50	39
2	114	83	122	619	225	149	247	100	182	193	50	40
3	72	74	103	446	499	135	213	115	166	158	57	51
4	57	66	92	536	509	126	878	100	143	138	59	48
5	49	70	203	486	368	121	861	105	119	126	60	42
6	45	70	279	377	279	117	501	140	107	124	52	50
7	42	67	188	329	236	115	348	130	120	110	50	65
8	95	65	148	276	213	107	277	120	100	97	50	51
9	103	64	137	450	182	103	292	115	88	94	54	46
10	76	59	115	541	162	101	268	110	80	112	82	45
11	63	56	100	610	152	104	238	105	76	98	61	43
12	56	54	89	673	140	145	211	350	73	87	56	41
13	52	53	102	474	140	385	198	560	72	80	54	39
14	52	52	204	347	365	303	177	280	70	74	50	43
15	48	50	195	275	366	232	163	200	58	73	48	41
16	45	53	158	230	302	225	149	160	72	70	47	40
17	43	50	139	198	261	229	143	140	94	66	48	38
18	41	48	113	174	241	213	134	134	69	64	48	39
19	40	46	103	159	276	204	125	122	65	63	50	37
20	39	46	137	147	375	242	120	107	61	64	51	36
21	39	54	463	164	322	589	110	97	50	65	46	40
22	38	101	335	163	479	677	105	92	111	59	42	44
23	37	95	233	162	521	430	170	211	86	58	41	39
24	37	84	184	165	366	310	150	232	78	52	40	37
25	36	83	160	198	282	239	130	180	71	65	40	37
26	35	82	325	244	227	203	120	152	67	57	38	35
27	35	116	537	284	197	179	110	155	93	56	38	35
28	37	224	336	264	177	164	105	130	1,980	65	37	38
29	43	284	248	230	------	154	100	118	736	57	39	38
30	56	199	300	199	------	172	95	147	394	55	41	36
31	66	------	471	177	------	198	------	211	------	51	40	------
TOTAL	1,651	2,531	6,461	10,519	8,022	6,835	6,989	5,008	5,639	2,806	1,519	1,253
MEAN	53.6	84.4	208	339	287	220	233	162	190	90.5	49.0	41.8
MAX	114	284	537	922	521	677	878	560	1,980	255	82	65
MIN	35	46	89	147	140	101	95	90	50	51	37	35
CFSM	.70	1.11	2.73	4.45	3.77	2.89	3.06	2.13	2.50	1.19	.64	.55
IN	.81	1.24	3.16	5.14	3.92	3.34	3.42	2.45	2.79	1.37	.74	.61

CAL YR 1973 TOTAL 48,151 MEAN 132 MAX 1,420 MIN 30 CFSM 1.73 IN 23.54
WTR YR 1974 TOTAL 59,302 MEAN 162 MAX 1,980 MIN 35 CFSM 2.13 IN 24.99

PEAK DISCHARGE (BASE, 650 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1- 1	0630	4.36	1,030	4- 4	1730	5.29	1,530
1-12	0100	3.76	749	5-12	UNKNOWN	4.10	900
3-21	2200	4.09	895	6-28	0700	7.54	3,100

03473000 SOUTH FORK HOLSTON RIVER AT VESTAL, VA.

LOCATION.--Lat 36°39'06", long 81°50'39", Washington County, on right bank 500 ft (152 m) upstream from bridge on U.S. Highway 58 at Vestal, 0.7 mi (1.1 km) downstream from Laurel Creek, 3.2 mi (5.1 km) northwest of Damascus, 4.9 mi (7.9 km) upstream from Middle Fork, and at mile 77.2.

DRAINAGE AREA.--301 mi² (780 km²).

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,792.30 ft (546.293 m) above mean sea level.

AVERAGE DISCHARGE.--43 years, 470 ft³/s or 13.31 m³/s (21.20 in/yr or 538 mm/yr).

EXTREMES.--Current year: Maximum discharge, 8,720 ft³/s (247 m³/s) Apr. 4 (gage height, 11.68 ft or 3.560 m); minimum, 145 ft³/s (4.11 m³/s) Oct. 28 (gage height, 2.60 ft or 0.792 m).
Period of record: Maximum discharge, 15,100 ft³/s (428 m³/s) Jan. 29, 1957 (gage height, 15.35 ft or 4.679 m), from rating curve extended above 10,000 ft³/s (283 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 30 ft³/s (0.85 m³/s) Oct. 14, 1941, Dec. 24, 1943 (gage height, 2.16 ft or 0.658 m); minimum daily, 60 ft³/s (1.70 m³/s) Sept. 18, 1954, Sept. 26, 27, 1964.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Some diurnal fluctuation caused by powerplant above station. In earlier years fluctuation was more marked but has been gradually reduced as mills upstream have gone out of operation. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 1306: 1932-33(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	586	731	4,000	689	637	1,050	393	850	914	210	190
2	754	507	579	2,700	953	575	1,000	398	750	685	254	200
3	426	404	490	1,900	2,330	535	900	494	700	563	260	250
4	306	342	435	2,500	2,280	502	5,500	435	600	491	271	230
5	250	403	725	2,000	1,540	493	5,200	444	500	600	280	210
6	219	397	952	1,500	1,180	515	1,900	601	450	609	226	250
7	196	367	745	1,490	991	512	1,450	578	500	650	210	320
8	377	336	608	1,340	937	481	1,150	531	430	509	207	250
9	437	334	577	2,170	819	465	1,300	502	390	493	266	230
10	352	296	500	2,330	726	455	1,200	478	340	539	352	220
11	254	274	442	2,460	661	463	1,080	447	320	492	258	210
12	252	262	395	2,570	620	806	954	1,550	300	408	236	200
13	224	251	446	1,750	514	1,440	1,040	2,440	290	356	221	190
14	246	242	929	1,310	1,860	1,140	962	1,340	290	323	202	240
15	222	234	827	1,090	1,570	879	876	947	270	316	193	235
16	201	285	705	928	1,590	1,160	763	733	300	317	201	239
17	190	244	805	799	1,660	1,000	692	500	350	279	264	217
18	182	232	515	699	1,360	930	630	533	290	252	242	221
19	176	228	450	635	1,210	900	575	597	251	256	447	194
20	172	220	600	595	1,260	1,000	529	523	248	334	311	179
21	158	322	2,000	671	1,130	2,400	490	462	246	322	250	377
22	164	331	1,500	631	1,410	2,800	467	429	723	249	220	411
23	151	478	1,000	615	1,590	1,800	733	1,380	508	239	200	300
24	157	417	800	632	1,270	1,300	656	1,300	420	279	200	255
25	154	425	700	881	1,050	960	587	899	355	291	195	233
26	151	447	1,000	1,089	865	830	535	713	346	250	190	216
27	150	1,060	2,400	1,230	748	730	493	730	515	296	190	200
28	156	1,690	1,500	1,150	678	670	458	571	4,550	249	190	202
29	247	1,520	1,100	1,030	------	640	431	510	2,200	224	200	201
30	301	1,010	1,300	885	------	720	409	650	1,290	250	210	184
31	437	------	2,100	778	------	800	------	900	------	208	200	------
TOTAL	8,095	14,344	27,705	44,350	33,611	28,589	34,010	23,109	19,582	12,252	7,356	7,045
MEAN	261	478	894	1,431	1,200	922	1,134	745	653	395	237	235
MAX	754	1,690	2,400	4,000	2,330	2,800	5,500	2,440	4,550	914	447	411
MIN	150	220	395	595	614	455	409	393	246	208	190	179
CFSM	.87	1.59	2.97	4.75	3.99	3.05	3.77	2.48	2.17	1.31	.79	.78
IN	1.00	1.77	3.42	5.48	4.15	3.53	4.20	2.86	2.42	1.51	.91	.87

CAL YR 1973 TOTAL 207,204 MEAN 568 MAX 5,560 MIN 121 CFSM 1.89 IN 25.61
WTR YR 1974 TOTAL 260,049 MEAN 712 MAX 5,500 MIN 150 CFSM 2.37 IN 32.14

PEAK DISCHARGE (BASE, 3,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1- 1	UNKNOWN	8.66	4,590	5-12	2230	7.62	3,440
4- 4	UNKNOWN	11.68	8,720	6-28	1200	9.55	5,720

NOTE.--NO GAGE-HEIGHT RECORD MAR. 17 TO APR. 10.

03474000 MIDDLE FORK HOLSTON RIVER AT SEVENMILE FORD, VA.

LOCATION.--Lat 36°48'26", long 81°37'20", Smyth County, on right bank at downstream side of bridge on U.S. Highway 11 at Sevenmile Ford, 0.3 mi (0.5 km) upstream from Meade Creek, 3.3 mi (5.3 km) downstream from Walker Creek, and at mile 32.1.

DRAINAGE AREA.--132 mi^2 (342 km^2).

PERIOD OF RECORD.--July 1942 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,960.00 ft (597.408 m) above mean sea level.

AVERAGE DISCHARGE.--32 years, 163 ft^3/s or 4.616 m^3/s (16.77 in/yr or 426 mm/yr).

EXTREMES.--Current year: Maximum discharge, 2,440 ft^3/s (69.1 m^3/s) Jan. 1 (gage height, 3.80 ft or 1.158 m); minimum, 41 ft^3/s (1.16 m^3/s) Sept. 21, 26, 30 (gage height, 1.14 ft or 0.347 m).
Period of record: Maximum discharge, 7,680 ft^3/s (217 m^3/s) Jan. 29, 1957 (gage height, 10.75 ft or 3.277 m); minimum, 9 ft^3/s (0.25 m^3/s) Sept. 26, 1944; minimum daily, 20 ft^3/s (0.57 m^3/s) Sept. 26, 1944, Aug. 2, 1964.

REMARKS.--Records good. Some diurnal fluctuation at low flow caused by mill 9 mi (14 km) above station. Since May 1936, flow occasionally regulated by the filling or draining of Hungry Mother Lake on Hungry Mother Creek (capacity, about 1,600 acre-ft or about 1.97 hm^3). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 973: 1942(m). WSP 1306: 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	214	225	1,690	297	237	386	142	215	177	55	52
2	133	158	189	872	408	203	356	148	149	140	54	51
3	93	120	168	689	779	192	301	161	161	118	62	68
4	92	102	156	1,360	695	181	1,310	143	137	108	62	64
5	67	123	230	623	483	179	1,030	154	120	104	61	54
6	63	137	269	575	390	180	632	264	111	219	56	67
7	62	134	227	525	344	200	448	233	118	137	55	85
8	261	122	200	454	326	201	375	194	105	109	56	62
9	210	119	210	761	287	195	386	191	101	102	58	55
10	142	108	204	777	261	187	341	182	92	111	56	57
11	130	103	198	1,230	251	202	305	192	87	100	54	54
12	117	100	175	1,060	239	516	276	897	83	90	54	50
13	110	97	216	637	243	1,040	263	794	81	92	54	48
14	110	95	408	470	614	575	237	410	77	77	54	47
15	100	92	334	384	499	451	231	288	76	74	68	47
16	79	83	274	331	452	457	206	226	100	89	53	46
17	76	74	239	306	451	462	201	187	98	74	60	45
18	63	71	205	274	501	408	195	179	76	69	57	45
19	60	70	184	258	551	395	178	168	71	66	73	44
20	60	67	172	245	606	464	174	146	70	77	66	43
21	60	89	451	276	479	1,070	164	132	70	79	55	49
22	59	152	367	283	582	880	159	124	125	66	52	49
23	58	123	278	306	589	582	356	250	90	64	50	45
24	57	108	235	324	473	457	333	205	80	67	49	43
25	56	104	213	520	399	373	252	166	73	67	48	43
26	55	104	563	524	333	330	212	146	70	64	46	43
27	55	403	552	542	269	302	188	161	91	65	46	43
28	62	707	370	442	250	285	172	128	1,070	63	45	49
29	72	479	319	392	------	268	158	117	446	59	46	47
30	127	293	899	367	------	280	148	185	251	53	59	44
31	147	------	1,150	330	------	345	------	237	------	58	54	------
TOTAL	2,899	4,751	9,870	18,027	12,051	12,098	9,973	7,151	4,514	2,838	1,718	1,539
MEAN	93.5	158	318	582	430	390	332	231	150	91.5	55.4	51.3
MAX	261	707	1,150	1,690	779	1,070	1,310	897	1,070	219	73	85
MIN	55	67	156	245	239	179	148	117	70	58	45	43
CFSM	.71	1.20	2.41	4.41	3.26	2.95	2.52	1.75	1.14	.59	.42	.39
IN	.82	1.34	2.78	5.08	3.40	3.41	2.81	2.02	1.27	.80	.48	.43

CAL YR 1973 TOTAL 78,212 MEAN 214 MAX 2,320 MIN 47 CFSM 1.62 IN 22.04
WTR YR 1974 TOTAL 87,429 MEAN 240 MAX 1,690 MIN 43 CFSM 1.82 IN 24.54

PEAK DISCHARGE (BASE, 2,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
1- 1	0030	3.80	2,440	4- 4	1430	3.78	2,400

03478400 BEAVER CREEK NEAR BRISTOL, VA.

LOCATION.--Lat 36°37'54", long 82°08'02", Washington County, on right bank 50 ft (15 m) upstream from bridge on State Highway 1405, 75 ft (23 m) downstream from Goose Creek, 0.9 mi (1.4 km) downstream from Clear Creek, 2.1 mi (3.4 km) northeast of Bristol, and at mile 20.6.

DRAINAGE AREA.--27.7 mi^2 (71.7 km^2).

PERIOD OF RECORD.--July 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,780.98 ft (542.843 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 35.3 ft^3/s or 1.000 m^3/s (17.31 in/yr or 440 mm/yr).

EXTREMES.--Current year: Maximum discharge, 442 ft^3/s (12.5 m^3/s) Jan. 11 (gage height, 6.63 ft or 2.021 m); minimum, 11 ft^3/s (0.31 m^3/s) Oct. 4, 5, 8; minimum daily, 11 ft^3/s (0.31 m^3/s) Oct. 5; minimum gage height, 2.76 ft (0.841 m) Sept. 29, 30.

Period of record: Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) Apr. 28, 1970 (gage height, 8.11 ft or 2.472 m); minimum, 3.4 ft^3/s (0.096 m^3/s) Dec. 30, 1963; minimum daily, 7.4 ft^3/s (0.21 m^3/s) Sept. 28, 29, Oct. 5, 15, 18, 19, 23, 24, 1969; minimum gage height, 2.47 ft (0.753 m) Mar. 31, 1971.

Flood in 1936 reached a stage of about 12 ft (3.7 m).

REMARKS.--Records fair. Small diurnal fluctuation at low flow caused by withdrawal of water, which is returned to stream 600 ft (183 m) above station, for car-washing operation. Since September 1965, some regulation at high flow by flood-control reservoirs (capacity, 7,600 acre-ft or 9.37 hm^3). Water-quality records have been collected at this location and are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	39	72	252	72	74	75	37	51	34	22	19
2	24	33	60	169	153	64	76	54	50	32	22	18
3	18	29	50	158	170	54	71	67	45	32	22	24
4	22	28	61	250	133	50	214	54	38	32	22	19
5	11	31	69	170	114	63	123	57	37	32	21	16
6	12	30	54	142	103	65	102	60	36	32	21	22
7	13	30	51	140	98	64	92	55	38	31	22	19
8	14	28	49	116	115	60	91	50	43	32	23	17
9	20	19	51	232	85	50	102	47	37	30	22	16
10	18	17	45	181	70	45	86	43	35	33	25	16
11	18	16	40	372	62	59	81	51	34	31	21	16
12	19	16	45	293	60	64	76	73	34	29	20	15
13	19	15	48	195	94	61	86	57	33	28	20	15
14	18	15	35	159	195	57	80	50	33	27	19	14
15	17	21	27	133	111	55	77	47	32	28	19	14
16	16	26	25	117	194	74	75	45	43	28	19	14
17	16	19	28	104	160	66	66	39	35	27	19	14
18	15	17	26	95	127	61	60	40	32	26	21	14
19	15	17	26	88	119	65	54	44	32	27	20	14
20	15	21	28	85	103	143	50	42	34	25	18	13
21	15	27	39	107	94	258	48	41	35	24	18	21
22	14	24	34	87	128	152	45	43	93	23	17	16
23	14	22	32	80	97	117	76	80	43	24	17	15
24	14	22	33	82	91	104	60	54	36	27	17	14
25	14	24	32	82	86	96	54	49	34	24	17	13
26	16	25	134	88	81	91	50	49	32	23	17	13
27	19	89	96	86	76	87	45	51	36	22	17	14
28	24	136	72	85	76	85	43	47	45	21	16	14
29	32	88	75	83	------	81	40	47	36	20	17	13
30	34	77	132	78	------	91	38	62	34	36	21	13
31	34	------	228	76	------	82	------	52	------	24	18	------
TOTAL	590	1,001	1,797	4,385	3,069	2,537	2,238	1,587	1,176	864	610	475
MEAN	18.7	33.4	58.0	141	110	81.8	74.6	51.2	39.2	27.9	19.7	15.8
MAX	34	136	228	372	195	258	214	80	93	36	25	24
MIN	11	15	25	76	60	45	38	37	32	20	16	13
CFSM	.68	1.21	2.09	5.09	3.97	2.95	2.69	1.85	1.42	1.01	.71	.57
IN	.78	1.34	2.41	5.89	4.12	3.41	3.01	2.13	1.58	1.16	.82	.64

CAL YR 1973 TOTAL 18,745 MEAN 51.4 MAX 390 MIN 11 CFSM 1.86 IN 25.17
WTR YR 1974 TOTAL 20,319 MEAN 55.7 MAX 372 MIN 11 CFSM 2.01 IN 27.29

03488000 NORTH FORK HOLSTON RIVER NEAR SALTVILLE, VA.

LOCATION.--Lat 36°53'48", long 81°44'47", Smyth County, on right bank 0.5 mi (0.8 km) upstream from Cedar Branch bridge, 1.5 mi (2.4 km) northeast of Saltville, 7.8 mi (12.6 km) downstream from Laurel Creek, and at mile 84.6.

DRAINAGE AREA.--222 mi^2 (575 km^2).

PERIOD OF RECORD.--June 1907 to December 1908 (published as "at Saltville"), October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,703.53 ft (519.236 m) above mean sea level. June 11, 1907, to Nov. 12, 1908, nonrecording gage on highway bridge 2.1 mi (3.4 km) downstream at different datum. Nov. 2, 1920, to May 23, 1934, nonrecording gage on highway bridge 0.5 mi (0.8 km) downstream at datum 7.74 ft (2.359 m) lower.

AVERAGE DISCHARGE.--55 years, 297 ft^3/s or 8.411 m^3/s (18.17 in/yr or 462 mm/yr).

EXTREMES.--Current year: Maximum discharge, 5,130 ft^3/s (145 m^3/s) Dec. 26, Jan. 1 (gage height, 6.52 ft or 1.987 m); minimum, 35 ft^3/s (0.99 m^3/s) Sept. 27; minimum gage height, 0.50 ft (0.152 m) Aug. 25.

Period of record: Maximum discharge, 16,500 ft^3/s (467 m^3/s) Jan. 29, 1957 (gage height, 13.20 ft or 4.023 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.0 ft^3/s (0.028 m^3/s) Oct. 15, 16, 1947 (gage height, 0.13 ft or 0.040 m), flow retarded by mine cave-in; minimum daily, 2.0 ft^3/s (0.057 m^3/s) Oct. 15, 1947.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 758: Drainage area. WSP 1113: 1944-47. WSP 1306: 1907(M), 1921-22(M), 1924-30(M), 1932-34(M), drainage area at site used 1907-8. WSP 1726: 1947, monthly and yearly runoff.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	430	506	4,180	482	358	704	213	386	386	62	68
2	268	391	372	1,980	620	322	698	223	386	294	59	60
3	219	256	299	1,750	1,270	298	590	270	354	223	59	57
4	168	193	259	2,990	1,320	274	1,860	274	298	185	63	60
5	126	209	300	1,880	908	258	2,150	286	250	174	65	59
6	100	290	416	1,180	698	298	1,140	542	216	199	60	60
7	86	236	347	923	584	566	800	506	199	184	57	75
8	152	201	295	743	524	716	650	395	206	157	57	79
9	345	182	301	1,050	440	596	710	370	223	136	60	63
10	208	155	301	1,280	374	482	638	350	185	130	63	59
11	155	133	267	2,390	350	452	548	334	154	127	59	56
12	123	121	233	2,310	326	944	476	1,360	139	114	57	54
13	105	114	250	1,250	334	2,700	440	2,040	125	102	60	51
14	98	108	546	891	632	1,350	395	944	117	94	57	51
15	94	103	568	705	728	896	395	632	109	88	54	48
16	86	115	449	575	836	806	346	464	181	86	62	47
17	78	117	373	473	1,210	914	318	366	199	84	56	44
18	73	102	295	395	1,110	764	310	326	133	79	56	43
19	70	98	258	358	926	686	282	326	114	77	71	42
20	68	95	243	338	920	1,090	266	294	104	82	86	41
21	66	102	638	425	794	2,680	242	258	102	82	63	43
22	64	193	726	540	878	2,610	230	234	202	73	56	47
23	62	203	549	515	1,010	1,290	386	362	282	70	51	47
24	62	184	438	496	806	908	390	370	216	73	50	41
25	60	172	384	821	650	674	342	302	181	75	47	38
26	59	178	2,660	980	506	536	306	258	148	73	46	37
27	58	1,260	2,810	1,140	420	452	278	266	145	82	45	36
28	63	2,150	1,200	966	382	395	254	223	1,140	82	45	37
29	81	1,420	834	854	------	370	234	199	1,050	70	45	37
30	119	764	2,080	674	------	452	220	318	620	71	51	38
31	215	------	2,480	572	------	578	------	378	------	68	60	------
TOTAL	3,657	10,275	21,596	35,624	20,038	25,715	16,598	13,683	8,164	3,820	1,782	1,518
MEAN	118	343	697	1,149	716	830	553	441	272	123	57.5	50.6
MAX	345	2,150	2,810	4,180	1,320	2,700	2,150	2,040	1,140	386	86	79
MIN	58	95	233	338	326	258	220	199	102	68	45	36
CFSM	.53	1.55	3.14	5.18	3.23	3.74	2.49	1.99	1.23	.55	.26	.23
IN	.61	1.72	3.62	5.97	3.36	4.31	2.78	2.29	1.37	.64	.30	.25

CAL YR 1973 TOTAL 141,604 MEAN 388 MAX 6,020 MIN 52 CFSM 1.75 IN 23.73
WTR YR 1974 TOTAL 162,470 MEAN 445 MAX 4,180 MIN 36 CFSM 2.00 IN 27.22

PEAK DISCHARGE (BASE, 3,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
12-26	2100	6.52	5,130	3-13	0700	5.17	3,370
1- 1	0400	6.52	5,130	3-21	2000	6.14	4,630
1- 4	1200	5.25	3,480	4- 4	2030	5.46	3,750
1-11	2130	5.19	3,400	5-12	2330	5.24	3,460

03490000 NORTH FORK HOLSTON RIVER NEAR GATE CITY, VA.

LOCATION.--Lat 36°36'31", long 82°34'05", Scott County, on left bank 75 ft (23 m) upstream from bridge on U.S. Highway 23, 1.6 mi (2.6 km) downstream from Big Moccasin Creek, 2.1 mi (3.4 km) southeast of Gate City, and at mile 8.8.

DRAINAGE AREA.--672 mi^2 (1,740 km^2).

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,197.56 ft (365.016 m) above mean sea level.

AVERAGE DISCHARGE.--43 years, 886 ft^3/s or 25.09 m^3/s (17.90 in/yr or 455 mm/yr).

EXTREMES.--Current year: Maximum discharge, 15,400 ft^3/s (436 m^3/s) Jan. 1 (gage height, 11.48 ft or 3.499 m); minimum, 141 ft^3/s (3.99 m^3/s) Oct. 27, 28 (gage height, 1.57 ft or 0.479 m).
Period of record: Maximum discharge, 30,000 ft^3/s (850 m^3/s) Mar. 12, 1963 (gage height, 16.42 ft or 5.005 m); maximum gage height, 16.73 ft (5.099 m) Jan. 30, 1957; minimum discharge, 36 ft^3/s (1.02 m^3/s) Sept. 16, 17, 1964; minimum gage height, 1.00 ft (0.305 m) Jan. 6, 1940.

REMARKS.--Records good. Prior to 1957, diurnal fluctuation at low flow caused by one or more mills above station. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 783: 1932(M). WSP 823: Drainage area. WSP 1276: 1932-34.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	633	1,580	14,600	1,510	1,060	1,610	604	1,530	1,100	218	230
2	248	890	1,170	8,700	2,120	963	1,740	667	1,410	776	201	227
3	359	775	932	5,490	4,590	874	1,640	1,410	1,280	604	203	230
4	399	550	783	8,880	4,140	807	4,300	1,260	1,080	485	210	244
5	277	436	889	7,550	3,120	750	6,780	1,020	880	420	198	235
6	232	432	1,200	4,090	2,270	785	3,810	1,480	741	401	197	230
7	190	558	1,090	3,070	1,880	1,030	2,440	1,670	653	364	240	233
8	175	492	916	2,500	1,700	1,470	1,960	1,330	598	438	197	274
9	273	425	810	4,820	1,750	1,470	2,230	1,220	551	418	195	253
10	557	362	783	5,720	1,470	1,270	2,160	1,140	548	359	201	263
11	466	321	759	12,200	1,310	1,130	1,790	1,050	466	530	215	251
12	325	281	670	10,900	1,200	1,220	1,530	2,990	409	476	205	224
13	268	257	627	5,140	1,130	3,000	1,780	5,130	352	350	193	214
14	239	243	681	3,200	2,850	3,970	1,790	3,230	329	295	180	199
15	219	237	942	2,390	2,520	2,320	1,590	1,940	301	297	184	190
16	212	283	995	1,940	2,850	1,940	1,440	1,400	376	375	251	186
17	194	299	875	1,630	4,890	2,690	1,260	1,110	531	321	223	181
18	180	292	762	1,390	3,400	2,290	1,120	928	461	257	300	173
19	171	263	661	1,230	2,660	1,900	1,010	1,150	337	243	481	170
20	168	243	601	1,140	2,180	3,370	911	1,260	306	239	277	164
21	162	294	795	1,180	1,870	7,060	820	1,020	320	241	267	268
22	156	409	1,490	1,540	2,530	10,500	762	862	1,320	234	274	278
23	153	471	1,390	1,490	3,070	4,680	875	1,230	1,800	221	227	242
24	150	468	1,160	1,420	2,400	2,860	1,270	1,610	942	230	208	213
25	150	430	1,030	1,790	1,910	2,080	1,140	1,210	698	248	197	193
26	147	515	6,500	2,400	1,540	1,620	980	959	595	260	190	183
27	144	3,930	11,900	3,120	1,280	1,360	866	876	495	311	184	176
28	194	7,670	4,790	2,930	1,140	1,220	787	767	1,390	309	179	180
29	255	5,340	2,670	2,540	------	1,130	717	671	2,750	249	178	187
30	340	2,550	4,680	2,090	------	1,250	656	871	1,760	252	179	182
31	417	------	7,200	1,750	------	1,580	------	1,200	------	258	217	------
TOTAL	7,596	30,349	61,331	128,830	65,280	69,649	51,764	43,265	25,199	11,561	6,869	6,473
MEAN	245	1,012	1,978	4,156	2,331	2,247	1,725	1,396	840	373	222	216
MAX	557	7,670	11,900	14,600	4,890	10,500	6,780	5,130	2,750	1,100	481	278
MIN	144	237	601	1,140	1,130	750	656	604	301	221	178	164
CFSM	.36	1.51	2.94	6.18	3.47	3.34	2.57	2.08	1.25	.56	.33	.32
IN	.42	1.68	3.40	7.13	3.61	3.85	2.87	2.40	1.39	.64	.38	.36

CAL YR 1973 TOTAL 428,870 MEAN 1,175 MAX 24,100 MIN 144 CFSM 1.75 IN 23.74
WTR YR 1974 TOTAL 508,166 MEAN 1,392 MAX 14,600 MIN 144 CFSM 2.07 IN 28.13

PEAK DISCHARGE (BASE, 7,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1600	8.32	8,310	1- 9	2230	7.94	7,550
12-27	0200	10.71	13,500	1-11	1930	11.17	14,600
1- 1	1100	11.48	15,400	3-22	0400	10.13	12,200
1- 4	1730	9.16	10,100	4- 5	1300	7.89	7,450

03521500 CLINCH RIVER AT RICHLANDS, VA.

LOCATION.--Lat 37°05'10", long 81°46'52", Tazewell County, on right bank 1.0 mi (1.6 km) southeast of Richlands, 1.6 mi (2.6 km) downstream from Middle Creek, 2.2 mi (3.5 km) upstream from Big Creek, and at mile 321.0.

DRAINAGE AREA.--139 mi² (360 km²).

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,924.08 ft (586.460 m) above mean sea level. Prior to Aug. 6, 1950, nonrecording gage at bridge 1.1 mi (1.8 km) downstream at datum 6.53 ft (1.990 m) lower.

AVERAGE DISCHARGE.--29 years, 190 ft³/s or 5.381 m³/s (18.56 in/yr or 471 mm/yr).

EXTREMES.--Current year: Maximum discharge, 3,250 ft³/s (92.0 m³/s) Mar. 21 (gage height, 9.20 ft or 2.804 m); minimum, 24 ft³/s (0.68 m³/s) Sept. 30 (gage height, 0.74 ft or 0.226 m).

Period of record: Maximum discharge, 9,640 ft³/s (273 m³/s) Jan. 29, 1957 (gage height, 19.3 ft or 5.88 m, from floodmark), from rating curve extended above 4,800 ft³/s (136 m³/s) on basis of contracted-opening measurement of peak flow; minimum, 3.2 ft³/s (0.091 m³/s) Sept. 8, 1955; minimum daily, 8.8 ft³/s (0.25 m³/s) July 6, Sept. 10, 16, 1964; minimum gage height, 0.45 ft (0.137 m) July 2, 3, 1951.

Flood of June 22, 1901, reached a stage of 21.3 ft (6.49 m), present site and datum, from floodmark (discharge, 11,500 ft³/s or 326 m³/s), from report by Tennessee Valley Authority. Flood of Feb. 18, 1944, reached a stage of 13.7 ft (4.18 m), present site and datum, from floodmark (discharge, 5,500 ft³/s or 156 m³/s), from report by Tennessee Valley Authority.

REMARKS.--Records good. Prior to October 1970, diurnal fluctuation at low flow caused by mill 1.7 mi (2.7 km) above station. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1306: 1946(M), 1948-50(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	219	364	1,760	270	210	430	130	270	120	38	44
2	90	164	270	1,120	345	190	387	150	280	99	37	39
3	81	119	220	1,190	498	180	319	200	246	85	37	38
4	65	96	190	1,520	431	160	1,340	190	175	74	40	39
5	54	127	190	1,070	337	210	1,030	258	107	78	42	35
6	48	170	190	703	292	332	607	302	95	86	38	37
7	44	127	160	558	263	834	443	261	98	74	34	49
8	120	110	140	434	246	576	431	220	87	68	34	49
9	177	103	140	577	230	424	627	230	109	64	34	38
10	97	91	135	711	200	335	536	230	98	60	34	34
11	72	78	130	2,390	190	343	431	248	77	60	33	42
12	60	75	120	1,520	180	763	356	696	70	59	34	38
13	53	71	130	788	250	1,920	319	1,020	66	52	33	32
14	53	68	486	561	320	875	280	501	63	49	31	32
15	50	65	362	440	450	575	261	335	60	45	33	32
16	46	97	280	353	705	693	240	261	127	48	31	32
17	43	91	210	294	1,150	856	210	200	116	48	33	30
18	42	80	170	252	627	582	190	320	91	43	33	29
19	41	77	150	230	493	623	180	240	69	41	33	27
20	40	72	150	220	433	1,410	160	220	63	45	38	26
21	40	72	613	246	343	2,180	150	180	63	45	35	29
22	39	88	517	244	619	1,600	240	250	150	42	32	31
23	39	83	390	230	635	833	230	290	132	40	30	31
24	38	81	327	250	494	584	190	230	104	39	29	28
25	38	81	348	425	399	442	170	190	96	40	28	26
26	37	229	2,290	542	313	352	150	170	92	42	28	25
27	37	2,510	1,780	640	266	299	140	150	121	130	27	25
28	52	2,710	788	504	240	265	130	130	453	69	26	25
29	109	1,110	539	449	------	251	125	150	246	50	25	25
30	242	551	864	376	------	323	120	210	159	49	26	25
31	231	------	890	319	------	350	------	250	------	44	37	------
TOTAL	2,242	9,615	13,533	20,916	11,221	19,571	10,422	8,412	3,943	1,888	1,023	992
MEAN	72.3	321	437	675	401	631	347	271	131	60.9	33.0	33.1
MAX	242	2,710	2,290	2,390	1,150	2,180	1,340	1,020	453	130	42	49
MIN	37	65	120	220	180	160	120	130	60	39	25	25
CFSM	.52	2.31	3.14	4.86	2.88	4.54	2.50	1.95	.94	.44	.24	.24
IN	.60	2.57	3.62	5.60	3.00	5.24	2.79	2.25	1.06	.51	.27	.27

CAL YR 1973 TOTAL 83,854 MEAN 230 MAX 3,180 MIN 34 CFSM 1.65 IN 22.44
WTR YR 1974 TOTAL 103,778 MEAN 284 MAX 2,710 MIN 25 CFSM 2.04 IN 27.77

PEAK DISCHARGE (BASE, 1,600 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	0800	9.18	3,240	2-17	0030	6.24	1,770
12-26	1500	9.01	3,160	3-13	0530	7.68	2,490
1- 1	0830	6.60	1,950	3-21	1400	9.20	3,250
1- 4	1300	5.98	1,640	4- 4	1830	6.81	2,060
1-11	1300	9.10	3,200	5-12	2400	5.99	1,640

03524000 CLINCH RIVER AT CLEVELAND, VA.

LOCATION.--Lat 36°56'41", long 82°09'18", Russell County, on right bank 500 ft (152 m) upstream from highway bridge at Cleveland, 0.5 mi (0.8 km) downstream from Muddy Hollow, 2.3 mi (3.7 km) downstream from Weaver Creek, 4.4 mi (7.1 km) downstream from Thompson Creek, and at mile 271.6.

DRAINAGE AREA.--528 mi^2 (1,368 km^2).

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,500.24 ft (457.273 m) above mean sea level. Prior to Nov. 1, 1931, nonrecording gage on highway bridge 500 ft (152 m) downstream at datum 1.0 ft (0.30 m) lower.

AVERAGE DISCHARGE.--54 years, 707 ft^3/s or 20.02 m^3/s (18.18 in/yr or 462 mm/yr).

EXTREMES.--Current year: Maximum discharge, 12,200 ft^3/s (346 m^3/s) Dec. 26 (gage height, 15.25 ft or 4.648 m); minimum, 77 ft^3/s (2.18 m^3/s) Sept. 30 (gage height, 1.37 ft or 0.418 m).

Period of record: Maximum discharge, 31,000 ft^3/s (878 m^3/s) Jan. 30, 1957 (gage height, 24.40 ft or 7.437 m), from rating curve extended above 14,000 ft^3/s (396 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 35 ft^3/s (0.99 m^3/s) Sept. 28, 1964; minimum gage height, 0.96 ft (0.293 m) Feb. 10, 1934.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 1306: 1921-23(M), 1926(M), 1929-31(M). WSP 1706: 1927(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186	900	1,470	5,990	1,070	818	1,430	440	906	816	156	138
2	236	765	1,070	4,500	1,140	739	1,410	473	1,020	628	143	160
3	247	550	837	4,180	1,850	673	1,210	621	1,040	509	138	149
4	236	423	716	5,550	1,780	623	2,980	731	799	434	145	140
5	196	457	717	4,270	1,460	591	4,140	700	641	405	166	132
6	172	629	732	2,810	1,220	811	2,360	1,070	544	388	156	127
7	153	552	606	2,150	1,070	2,680	1,710	1,020	487	403	141	159
8	260	450	542	1,700	963	2,320	1,460	811	446	356	136	168
9	681	397	530	1,880	873	1,700	2,350	842	431	316	144	151
10	479	349	544	2,470	758	1,340	2,130	887	414	292	186	131
11	306	297	508	7,510	708	1,180	1,720	846	362	267	148	135
12	236	265	465	6,760	681	1,790	1,420	2,120	322	264	135	120
13	204	251	479	3,210	688	4,750	1,320	3,670	290	241	131	123
14	189	239	870	2,230	1,140	3,270	1,150	2,130	272	225	127	119
15	182	230	1,080	1,740	1,180	2,100	1,130	1,420	263	211	129	108
16	170	299	893	1,410	1,730	2,190	940	1,060	363	210	168	105
17	157	360	781	1,170	4,060	3,090	831	841	508	202	146	101
18	144	309	663	980	2,510	2,260	757	753	373	196	145	99
19	137	276	586	859	1,860	1,850	693	1,200	288	185	136	93
20	133	260	578	793	1,570	2,900	637	898	252	194	127	89
21	130	256	1,400	841	1,290	6,240	585	779	252	188	127	103
22	128	330	1,850	946	1,830	7,170	548	650	1,230	184	123	119
23	124	345	1,430	825	2,360	3,280	894	1,070	1,210	172	113	114
24	123	319	1,170	810	1,830	2,250	848	1,080	677	169	104	104
25	120	304	1,170	1,340	1,510	1,690	682	798	520	173	98	94
26	117	399	7,270	1,720	1,210	1,350	610	659	442	167	94	88
27	115	6,870	8,720	2,100	1,020	1,130	558	622	430	175	92	83
28	151	9,560	3,480	1,870	896	995	522	535	2,530	246	89	83
29	436	5,070	2,180	1,730	------	904	488	482	2,080	204	89	83
30	692	2,260	2,990	1,490	------	1,160	460	554	1,210	179	93	82
31	1,110	------	3,290	1,270	------	1,440	------	816	------	176	114	------
TOTAL	7,950	33,971	49,617	77,104	40,257	65,285	37,973	30,578	20,612	8,776	4,039	3,500
MEAN	256	1,132	1,601	2,487	1,438	2,106	1,266	986	687	283	130	117
MAX	1,110	9,560	8,720	7,510	4,060	7,170	4,140	3,670	2,530	816	186	168
MIN	115	230	465	793	681	591	460	440	252	167	89	82
CFSM	.48	2.14	3.03	4.71	2.72	3.99	2.40	1.87	1.30	.54	.25	.22
IN	.56	2.39	3.50	5.43	2.84	4.60	2.68	2.15	1.45	.62	.28	.25

CAL YR 1973 TOTAL 306,226 MEAN 839 MAX 16,800 MIN 108 CFSM 1.59 IN 21.59
WTR YR 1974 TOTAL 379,662 MEAN 1,040 MAX 9,560 MIN 82 CFSM 1.97 IN 26.75

PEAK DISCHARGE (BASE, 5,000 FT3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1130	14.18	10,700	1-11	1800	13.61	9,930
12-26	2300	15.25	12,200	3-13	1600	9.23	5,230
1- 1	1400	10.42	6,420	3-22	0200	13.40	9,680
1- 4	1000	9.89	5,890	4- 5	0100	9.21	5,210

03527000 CLINCH RIVER AT SPEERS FERRY, VA.

LOCATION.--Lat 36°38'55", long 82°45'02", Scott County, on right bank 200 ft (61 m) downstream from bridge on U.S. Highway 58, 0.5 mi (0.8 km) downstream from Copper Creek, 0.8 mi (1.3 km) northwest of Speers Ferry, 1.8 mi (2.9 km) south of Clinchport, and at mile 211.0.

DRAINAGE AREA.--1,126 mi² (2,916 km²).

PERIOD OF RECORD.--October 1920 to current year. Gage-height records collected in this vicinity February 1895 to July 1933 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 1,196.52 ft (364.699 m) above mean sea level. Prior to Nov. 23, 1926, nonrecording gage at site 400 ft (122 m) upstream at datum 1.50 ft (0.457 m) higher. Nov. 23, 1926, to Nov. 6, 1931, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--54 years, 1,591 ft³/s or 45.06 m³/s (19.19 in/yr or 487 mm/yr).

EXTREMES.--Current year: Maximum discharge, 28,900 ft³/s (818 m³/s) Jan. 11 (gage height, 22.50 ft or 6.858 m); minimum, 238 ft³/s (6.74 m³/s) Sept. 30; minimum gage height, 2.05 ft (0.625 m) Oct. 27, 28.

Period of record: Maximum discharge, 46,800 ft³/s (1,330 m³/s) Mar. 12, 1963 (gage height, 29.93 ft or 9.123 m); minimum, 42 ft³/s (1.19 m³/s) Sept. 29, Oct. 23, 1939; minimum daily, 77 ft³/s (2.18 m³/s) Oct. 7, 8, 14, 15, 22, 1930; minimum gage height, 0.82 ft (0.250 m) Oct. 13, 1943.

Flood in February 1862 reached a stage of 33 ft (10.1 m), present site and datum, from reports of the Tennessee Valley Authority. Flood of Feb. 28, 1902, reached a stage of 26.6 ft (8.11 m), at site 400 ft (122 m) upstream and at datum about 1 ft (0.3 m) higher, from records of the National Weather Service.

REMARKS.--Records good. Prior to May 1951, diurnal fluctuation at low flow caused by mills above station. Water-quality records for the current year are included in this report.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 1276: 1925(M), 1927, 1928-31(M), 1932, 1935(M). WSP 1306: 1922(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	314	1,500	3,440	11,100	2,530	1,840	2,880	990	2,360	1,680	374	388
2	444	1,360	2,450	10,200	3,040	1,670	2,930	1,140	2,910	1,260	343	658
3	475	1,110	1,920	9,890	5,130	1,510	2,820	2,800	3,400	1,030	347	532
4	456	846	1,580	11,900	4,700	1,380	5,360	2,850	2,490	872	706	450
5	447	708	1,560	10,300	3,660	1,270	9,200	2,310	1,880	774	682	410
6	401	783	1,790	6,670	2,980	1,320	6,040	2,750	1,490	851	526	370
7	369	950	1,590	4,620	2,600	2,460	3,890	2,790	1,350	754	435	365
8	366	845	1,330	3,620	2,310	4,350	3,130	2,320	1,180	748	406	361
9	692	720	1,190	5,450	2,090	3,340	3,430	1,990	1,070	700	401	361
10	956	634	1,120	6,930	1,820	2,700	3,870	1,900	965	664	484	343
11	728	576	1,060	20,500	1,640	2,310	3,290	1,800	884	658	445	406
12	547	529	974	22,400	1,520	2,440	2,830	4,540	797	598	445	388
13	465	494	971	9,490	1,470	5,370	2,570	8,680	723	532	379	383
14	423	473	1,290	5,410	2,670	6,860	2,420	5,710	658	472	338	365
15	393	460	1,730	4,020	3,040	4,300	2,540	3,470	616	455	316	343
16	375	514	1,790	3,260	3,380	3,550	2,320	2,620	830	956	329	312
17	357	578	1,540	2,670	6,680	5,260	2,040	2,090	1,230	580	379	288
18	340	610	1,320	2,290	6,280	4,820	1,810	1,770	1,000	460	401	277
19	325	567	1,150	1,990	4,130	3,720	1,620	2,990	807	425	816	263
20	314	523	1,060	1,800	3,330	4,530	1,460	2,910	696	415	550	249
21	308	591	1,220	1,690	2,770	11,500	1,330	2,450	698	440	425	320
22	301	982	2,350	1,710	3,170	17,300	1,230	2,100	2,690	420	610	465
23	295	959	2,440	1,710	5,020	8,960	1,450	2,270	4,520	379	460	383
24	291	823	2,050	1,620	4,150	5,110	2,030	2,980	2,380	392	370	320
25	286	727	1,840	2,180	3,320	3,740	1,770	2,300	1,520	435	325	288
26	283	980	11,400	3,260	2,760	2,940	1,510	1,790	1,170	397	292	270
27	278	13,800	22,200	4,190	2,320	2,500	1,350	1,560	993	760	273	259
28	306	25,800	10,600	4,170	2,040	2,200	1,230	1,330	1,600	670	273	256
29	453	16,000	5,090	3,940	------	2,010	1,130	1,150	3,690	502	277	256
30	716	6,020	4,800	3,520	------	2,220	1,050	1,480	2,480	484	273	249
31	1,020	------	6,070	2,980	------	2,890	------	1,870	------	420	292	------
TOTAL	13,734	81,462	100,915	185,480	90,550	126,370	80,530	79,700	49,077	20,183	12,972	10,568
MEAN	443	2,715	3,255	5,983	3,234	4,076	2,684	2,571	1,636	651	418	352
MAX	1,020	25,800	22,200	22,400	6,680	17,300	9,200	8,680	4,520	1,680	816	658
MIN	278	460	971	1,620	1,470	1,270	1,050	990	616	379	273	249
CFSM	.39	2.41	2.89	5.31	2.87	3.62	2.38	2.28	1.45	.58	.37	.31
IN	.45	2.69	3.33	6.13	2.99	4.17	2.66	2.63	1.62	.67	.43	.35

CAL YR 1973 TOTAL 667,637 MEAN 1,829 MAX 35,000 MIN 248 CFSM 1.62 IN 22.05
WTR YR 1974 TOTAL 851,541 MEAN 2,333 MAX 25,800 MIN 249 CFSM 2.07 IN 28.13

PEAK DISCHARGE (BASE, 10,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1400	22.04	27,800	1- 4	2100	13.90	12,400
12-27	0330	20.71	24,600	1-11	2230	22.50	28,900
1- 1	1630	13.72	12,100	3-22	0430	18.39	19,300

03528000 CLINCH RIVER ABOVE TAZEWELL, TENN.

LOCATION.--Lat 36°25'30", long 83°23'54", Claiborne County, on right bank 0.4 mi (0.6 km) upstream from Grissom Island, 4.6 mi (7.4 km) downstream from Big War Creek, 10 mi (16 km) east of Tazewell, and at mile 159.8.

DRAINAGE AREA.--1,474 mi^2 (3,818 km^2).

PERIOD OF RECORD.--October 1918 to current year. Published as "near Lone Mountain" October 1918 to September 1927; as "near Tazewell" August 1927 to December 1936; and as "above Tazewell" July 1935 to current year. Prior to April 1919, monthly discharge only, published in WSP 1306. Gage-height record "near Tazewell" January 1937 to July 1941.

GAGE.--Water-stage recorder. Datum of gage is 1,060.7 ft (323.30 m) above mean sea level. Apr. 1, 1919, to Sept. 30, 1927, nonrecording gage on railroad bridge 23.3 mi (37.5 km) downstream at datum 102.7 ft (31.30 m) lower. Aug. 8, 1927, to July 16, 1941, water-stage recorder at site 8.0 mi (12.9 km) downstream at datum 47.2 ft (14.39 m) lower. Water-stage recorder at present site and datum since July 29, 1935.

AVERAGE DISCHARGE.--56 years, 2,090 ft^3/s or 59.19 m^3/s (19.26 in/yr or 489 mm/yr).

EXTREMES.--Current year: Maximum discharge, 36,200 ft^3/s (1,030 m^3/s) Jan. 12 (gage height, 17.18 ft or 5.236 m); minimum, 262 ft^3/s (7.42 m^3/s) Oct. 27, 28 (gage height, 0.79 ft or 0.241 m).

Period of record: Maximum discharge, 56,700 ft^3/s (1,610 m^3/s) Mar. 13, 1963 (gage height, 22.27 ft or 6.788 m); minimum, 108 ft^3/s (3.06 m^3/s) Sept. 11, 1925; minimum gage height at present site and datum, 0.33 ft (0.101 m) Sept. 20, 1955.

Maximum stage known, about 24 ft (7.3 m) in 1862, present site and datum, from information by local resident.

REMARKS.--Records good. Water-quality records have been collected at this site and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 803: Drainage area at site "near Tazewell". WSP 1306: Drainage area at site "near Lone Mountain". WSP 1336: 1928.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	1,440	5,670	12,500	3,650	2,490	3,420	1,380	4,140	2,330	523	400
2	405	1,730	3,610	14,100	4,040	2,270	4,090	1,450	3,580	1,740	472	536
3	557	1,510	2,710	13,300	7,960	2,070	4,150	3,700	4,240	1,390	527	769
4	603	1,190	2,230	16,400	7,840	1,900	5,990	5,150	3,750	1,160	583	634
5	544	953	2,290	15,300	5,870	1,760	11,200	3,650	2,770	1,060	900	549
6	509	843	2,290	10,600	4,500	1,700	10,100	3,710	2,200	990	798	511
7	444	927	2,250	7,030	3,760	1,970	6,140	3,860	1,930	1,030	644	475
8	396	1,060	1,930	5,230	3,280	4,180	4,700	3,360	1,740	896	563	458
9	393	938	1,690	7,550	2,970	4,580	4,780	2,850	1,560	893	526	444
10	807	804	1,560	11,400	2,640	3,510	5,070	2,500	1,380	842	514	444
11	1,050	710	1,430	25,300	2,370	2,920	4,750	2,390	1,230	813	668	629
12	782	645	1,330	34,100	2,160	2,770	3,450	3,500	1,120	791	765	498
13	600	549	1,370	20,300	2,040	3,830	3,590	9,410	1,010	721	615	676
14	504	542	1,740	9,150	2,850	7,610	3,310	8,770	916	650	522	585
15	447	516	1,970	6,110	3,970	6,520	3,170	5,470	844	596	463	495
16	400	656	2,320	4,760	4,560	4,570	3,200	3,700	885	640	464	449
17	372	693	2,110	3,820	7,160	5,340	2,890	2,870	1,300	1,050	514	410
18	352	704	1,840	3,180	8,880	6,500	2,600	2,370	1,400	676	538	384
19	334	721	1,540	2,760	6,420	5,590	2,330	2,650	1,150	594	601	359
20	317	664	1,450	2,480	4,770	6,840	2,120	4,110	975	557	957	338
21	304	898	1,570	2,300	3,830	13,400	1,930	3,130	1,310	535	680	726
22	295	1,770	1,940	2,180	4,030	23,700	1,780	2,900	1,770	544	551	1,080
23	287	1,510	3,000	2,230	5,790	17,400	1,930	3,010	5,520	531	698	695
24	282	1,240	2,630	2,250	6,030	8,560	2,340	3,600	3,980	503	568	543
25	277	1,050	2,310	2,740	4,760	5,620	2,510	3,370	2,280	524	471	454
26	270	1,200	10,100	3,970	3,840	4,230	2,170	2,580	1,680	552	417	405
27	264	13,600	25,900	5,630	3,180	3,420	1,920	2,340	1,390	516	380	382
28	299	33,000	21,000	6,140	2,750	2,960	1,740	1,960	1,520	996	353	422
29	449	27,000	9,060	6,160	------	2,710	1,590	1,700	2,920	784	339	399
30	574	12,100	6,500	5,380	------	2,960	1,470	3,110	3,530	611	371	363
31	902	------	7,370	4,430	------	3,540	------	4,140	------	588	366	------
TOTAL	14,362	111,203	134,790	268,880	125,900	167,970	111,330	108,690	64,000	26,093	17,331	15,312
MEAN	463	3,707	4,348	8,674	4,496	5,418	3,711	3,506	2,133	842	559	510
MAX	1,050	33,000	25,900	34,100	8,880	23,700	11,200	9,410	5,520	2,330	957	1,080
MIN	264	516	1,330	2,180	2,040	1,700	1,470	1,380	844	503	339	338
CFSM	.31	2.51	2.95	5.88	3.05	3.68	2.52	2.38	1.45	.57	.38	.35
IN	.36	2.81	3.40	6.79	3.18	4.24	2.81	2.74	1.62	.66	.44	.39

CAL YR 1973 TOTAL 926,481 MEAN 2,538 MAX 46,200 MIN 264 CFSM 1.72 IN 23.38
WTR YR 1974 TOTAL 1,165,861 MEAN 3,194 MAX 34,100 MIN 264 CFSM 2.17 IN 29.42

PEAK DISCHARGE (BASE, 14,000 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	UNKNOWN	16.94	35,400	1-12	0730	17.18	36,200
12-27	1630	14.84	28,300	3-22	1300	13.72	24,800
1- 4	1030	10.79	16,600				

03531500 POWELL RIVER NEAR JONESVILLE, VA.

LOCATION.--Lat 36°39'43", long 83°05'42", Lee County, on right bank 175 ft (53 m) downstream from highway bridge, 2 mi (3 km) southeast of Jonesville, 10 mi (16 km) upstream from Wallen Creek, and at mile 143.1.

DRAINAGE AREA.--319 mi² (826 km²).

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is 1,259.08 ft (383.768 m) above mean sea level.

AVERAGE DISCHARGE.--43 years, 537 ft³/s or 15.21 m³/s (22.86 in/yr or 581 mm/yr).

EXTREMES.--Current year: Maximum discharge, 17,500 ft³/s (496 m³/s) Nov. 28 (gage height, 24.95 ft or 7.605 m); minimum, 68 ft³/s (1.93 m³/s) Oct. 27, 28 (gage height, 1.47 ft or 0.448 m).
Period of record: Maximum discharge, 31,100 ft³/s (881 m³/s) Mar. 12, 1963 (gage height, 33.36 ft or 10.168 m), from rating curve extended above 20,000 ft³/s (566 m³/s); minimum, 17 ft³/s (0.48 m³/s) Sept. 19, 20, 1954, and as result of storage behind temporary dam Oct. 18, 1961; minimum gage height, 0.68 ft (0.207 m) Oct. 18, 1961.

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 823: Drainage area. WSP 1033: 1932-44. WSP 1436: 1946(M), 1948(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	475	1,400	2,450	1,170	602	1,170	368	1,190	313	109	293
2	155	417	1,030	2,120	1,550	535	1,250	417	3,500	273	103	408
3	206	289	771	2,890	2,700	481	1,340	1,900	2,240	240	560	325
4	153	218	628	3,430	2,020	439	3,080	1,940	1,360	218	641	325
5	113	227	1,150	2,660	1,450	405	3,010	1,340	1,240	206	510	262
6	96	408	1,110	1,790	1,270	500	1,770	1,340	1,030	786	277	224
7	89	321	818	1,410	1,100	1,120	1,370	1,170	881	404	203	206
8	128	262	644	1,280	920	1,280	1,260	996	774	924	178	183
9	372	221	562	2,400	808	1,040	1,600	816	659	738	168	160
10	289	193	494	3,110	675	829	1,400	674	565	798	206	155
11	148	165	423	12,300	613	721	1,280	575	485	460	358	230
12	117	148	369	7,400	558	902	1,070	2,000	426	363	325	215
13	103	138	697	2,820	520	1,520	978	2,680	386	277	251	281
14	100	130	1,510	1,870	1,050	1,380	888	1,450	350	224	195	244
15	94	125	1,090	1,460	1,140	1,130	1,280	1,080	325	200	163	209
16	91	377	828	1,310	1,220	1,110	1,130	714	430	195	173	180
17	94	337	645	1,070	1,820	1,620	960	590	578	180	269	158
18	80	234	515	868	1,450	1,360	834	540	317	165	212	145
19	77	200	435	738	1,240	1,230	696	714	248	158	615	133
20	77	180	410	684	1,100	2,010	605	646	277	180	363	123
21	74	460	540	667	853	6,150	535	575	1,250	163	337	163
22	74	1,300	508	659	1,410	5,760	480	510	3,390	150	289	277
23	72	750	465	620	1,910	2,390	610	525	2,860	138	317	183
24	71	493	446	792	1,460	1,600	802	668	1,150	140	241	145
25	70	383	431	1,980	1,230	1,330	768	580	749	168	190	130
26	70	593	5,990	2,250	956	1,080	640	500	557	148	163	123
27	70	10,800	6,140	2,660	783	851	550	455	553	138	145	119
28	103	15,300	2,420	2,130	673	718	480	417	600	155	135	130
29	500	4,900	1,560	2,300	------	663	426	381	468	133	128	135
30	337	2,120	1,620	1,780	------	781	386	430	372	121	140	117
31	395	------	1,480	1,390	------	1,170	------	852	------	119	255	------
TOTAL	4,439	42,164	37,129	71,208	33,649	42,707	32,728	27,843	29,210	8,875	8,219	5,981
MEAN	143	1,405	1,198	2,297	1,202	1,378	1,091	898	974	286	265	199
MAX	500	15,300	6,140	12,300	2,700	6,150	3,080	2,680	3,500	924	641	408
MIN	70	125	369	620	520	405	386	368	248	119	103	117
CFSM	.45	4.40	3.76	7.20	3.77	4.32	3.42	2.82	3.05	.90	.83	.62
IN	.52	4.92	4.33	8.30	3.92	4.98	3.82	3.25	3.41	1.03	.96	.70

CAL YR 1973 TOTAL 271,732 MEAN 744 MAX 15,300 MIN 70 CFSM 2.33 IN 31.69
WTR YR 1974 TOTAL 344,152 MEAN 943 MAX 15,300 MIN 70 CFSM 2.96 IN 40.13

PEAK DISCHARGE (BASE, 5,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1200	24.95	17,500	3-21	2130	19.08	11,100
12-26	2100	17.82	10,100	6-22	1930	13.57	7,270
1-11	1900	24.04	16,400				

03532000 POWELL RIVER NEAR ARTHUR, TENN.

LOCATION.--Lat 36°32'30", long 83°37'49", Claiborne County, on left bank 500 ft (150 m) upstream from bridge on U.S. Highway 25E, 2.3 mi (3.7 km) east of Arthur, 2.4 mi (3.9 km) downstream from Indian Creek, and at mile 65.4.

DRAINAGE AREA.--665 mi² (1,774 km²).

* **PERIOD OF RECORD.**--October 1919 to current year. Gage-height records collected at same site December 1892 to August 1893, September 1904 to March 1925 are in reports of the National Weather Service (published as "near Tazewell").

GAGE.--Water-stage recorder. Datum of gage is 1,043.84 ft (318.162 m) above mean sea level (Tennessee River Survey datum). Prior to July 23, 1927, nonrecording gage, and July 23, 1927, to Sept. 30, 1970, water-stage recorder at same site at datum 2.00 ft (0.610 m) higher.

AVERAGE DISCHARGE.--55 years, 1,148 ft³/s or 32.51 m³/s (22.76 in/yr or 578 mm/yr).

EXTREMES.--Current year: Maximum discharge, 28,800 ft³/s (816 m³/s) Nov. 28 (gage height, 27.01 ft or 8.233 m); minimum, 189 ft³/s (5.35 m³/s) Oct. 27 (gage height, 1.79 ft or 0.546 m).

Period of record: Maximum discharge, 33,000 ft³/s (935 m³/s) Jan. 9, 1946 (gage height, 29.15 ft or 8.885 m, present datum, from floodmark), from rating curve extended above 27,000 ft³/s (765 m³/s) on basis of slope-area measurement of peak flow; minimum, 47 ft³/s (1.33 m³/s) Jan. 6, 1940, result of freezeup; minimum daily, 60 ft³/s (1.70 m³/s) Sept. 23, 1955; minimum gage height, 1.50 ft (0.457 m) Sept. 25, 26, 1972 (result of dredging).

Flood of Jan. 29, 1918, reached a stage of 29.2 ft (8.90 m), present datum (discharge, 33,000 ft³/s or 935 m³/s).

REMARKS.--Records good. Water-quality records have been collected at this location and are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1336: 1920, 1921(M), 1923.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	714	3,860	3,550	2,450	1,330	1,860	797	3,340	704	230	328
2	360	779	2,540	4,230	2,860	1,220	2,190	782	3,650	622	227	467
3	416	749	1,930	5,650	5,250	1,120	2,360	1,510	5,120	559	279	532
4	528	599	1,600	7,250	5,470	1,030	3,600	3,050	3,350	510	432	519
5	484	528	1,990	6,430	3,910	966	5,350	2,630	2,090	475	931	467
6	356	501	2,210	4,690	2,830	975	4,420	2,030	1,590	475	749	449
7	298	568	1,860	3,270	2,350	1,070	2,840	1,910	1,310	821	528	404
8	309	577	1,530	2,500	2,050	1,550	2,310	1,620	1,180	734	408	364
9	392	519	1,310	3,830	1,800	1,660	2,440	1,430	1,030	941	368	340
10	528	458	1,170	6,760	1,600	1,440	2,570	1,260	892	973	416	311
11	515	412	1,040	16,800	1,430	1,260	2,200	1,110	790	1,040	336	275
12	388	372	922	21,200	1,310	1,230	1,890	2,190	709	754	744	286
13	325	344	1,130	13,300	1,210	1,450	1,740	4,060	643	604	659	408
14	298	328	1,870	5,260	1,380	1,860	1,670	3,760	590	528	488	380
15	272	321	2,160	3,550	1,870	1,780	1,840	2,300	548	445	400	416
16	254	515	1,700	2,690	2,100	1,600	2,120	1,720	1,120	400	352	362
17	244	545	1,420	2,180	2,780	1,860	1,820	1,400	1,250	372	356	319
18	230	669	1,200	1,840	3,000	2,170	1,690	1,200	1,070	360	384	283
19	220	528	1,030	1,610	2,500	2,200	1,500	1,090	741	340	424	260
20	214	454	1,060	1,440	2,160	3,550	1,350	1,210	633	332	563	242
21	208	563	1,440	1,410	1,860	8,320	1,210	1,080	699	332	617	591
22	205	1,350	1,340	1,360	2,260	12,500	1,110	1,010	1,820	328	506	733
23	201	1,760	1,220	1,340	2,930	8,690	1,200	1,000	3,700	302	428	521
24	198	1,230	1,090	1,600	3,070	4,170	1,310	1,060	3,310	305	467	437
25	195	923	1,040	2,720	2,440	2,820	1,380	1,090	1,590	294	432	332
26	192	1,430	7,040	3,940	1,990	2,150	1,220	904	1,180	294	352	283
27	189	12,200	12,700	4,470	1,670	1,800	1,100	861	968	313	305	263
28	283	26,800	9,710	4,710	1,470	1,580	998	766	931	275	275	275
29	631	24,800	4,360	4,790	------	1,450	915	699	1,030	268	251	269
30	775	9,800	3,320	4,220	------	1,490	845	1,470	836	275	254	268
31	730	------	3,190	3,190	------	1,740	------	4,660	------	251	258	------
TOTAL	10,732	91,336	79,982	151,780	68,000	78,031	59,048	51,659	47,710	15,226	13,419	11,384
MEAN	346	3,045	2,580	4,896	2,429	2,517	1,968	1,666	1,590	491	433	379
MAX	775	26,800	12,700	21,200	5,470	12,500	5,350	4,660	5,120	1,040	931	733
MIN	189	321	922	1,340	1,210	966	845	699	548	251	227	242
CFSM	.51	4.45	3.77	7.15	3.55	3.67	2.87	2.43	2.32	.72	.63	.55
IN	.58	4.96	4.34	8.24	3.69	4.24	3.21	2.81	2.59	.83	.73	.62

CAL YR 1973 TOTAL 581,310 MEAN 1,593 MAX 26,800 MIN 189 CFSM 2.33 IN 31.57
WTR YR 1974 TOTAL 678,307 MEAN 1,858 MAX 26,800 MIN 189 CFSM 2.71 IN 36.84

PEAK DISCHARGE (BASE, 9,000 FT³/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
11-28	1230	27.01	28,800	1-12	1800	23.35	22,300
12-27	1930	18.02	14,300	3-22	1800	17.92	14,200

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in floodflow analyses. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in the following table. Discharge measurements made at miscellaneous sites are given in a second table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		POTOMAC RIVER BASIN					
01621000	Dry River at Rawley Springs, Va.	Lat 38°30'10", long 79°03'14", Rockingham County, at bridge on State Highway 847, at Rawley Springs. Datum of gage is 1,606.42 ft (489.64 m) above mean sea level.	72.6	1947-48* 1949-74	12-26-73	5.05	2,760
01621200	War Branch near Hinton, Va.	Lat 38°28'28", long 78°59'14", Rockingham County, at bridge on U.S. Highway 33, 1.0 mi (1.6 km) northwest of Hinton. Datum of gage is 1,349.09 ft (411.20 m) above mean sea level.	9.45	1949-74	12-26-73	3.58	652
01621450	Blacks Run tributary near Harrisonburg, Va.	Lat 38°23'30", long 78°55'05", Rockingham County, at culvert on U.S. Highway 11, 4.9 mi (7.9 km) southwest of Harrisonburg. Datum of gage is 1,189.31 ft (362.50 m) above mean sea level.	.72	1966-74	12-26-73	5.21	31
01622100	North River tributary near Mount Crawford, Va.	Lat 38°19'55", long 78°56'20", Rockingham County, at culvert on U.S. Highway 11, 1.7 mi (2.7 km) south of Mount Crawford. Datum of gage is 1,132.55 ft (345.20 m) above mean sea level.	1.55	1966-74	12-26-73	4.45	82
01622300	Buffalo Branch tributary near Augusta Springs, Va.	Lat 38°09'42", long 79°16'08", Augusta County, at culvert on State Highway 42, 5.0 mi (8.0 km) northeast of Augusta Springs.	.55	1967-74	12-26-73	4.35	84
01622400	Buffalo Branch tributary near Christian, Va.	Lat 38°11'55", long 79°13'10", Augusta County, at culvert on State Highway 42, 1.3 mi (2.1 km) north of Christian.	.49	1967-74	5-12-74	4.80	103
01627300	South River tributary near Harriston, Va.	Lat 38°12'10", long 78°50'10", Augusta County, at culvert on U.S. Highway 340, 1.1 mi (1.8 km) south of Harriston. Datum of gage is 1,176.67 ft (358.65 m) above mean sea level.	2.41	1966-74	1974	<3.1	<80

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		POTOMAC RIVER BASIN--Continued					
01628600	Cub Run tributary at Montevideo, Va.	Lat 38°22'15", long 78°47'00", Rockingham County, at culvert on U.S. Highway 33, 1.0 mi (1.6 km) northwest of Montevideo. Datum of gage is 1,189.68 ft (362.61 m) above mean sea level.	0.42	1966-74	12-26-73	3.40	36
01629400	South Fork Shenandoah River tributary near Luray, Va.	Lat 38°38'35", long 78°33'20", Page County, at culvert on U.S. Highway 211, 5.5 mi (8.8 km) southwest of Luray.	.54	1966-74	12-21-73	5.05	52
01629945	Chub Run near Stanley, Va.	Lat 38°34'31", long 78°27'32", Page County, at culvert on State Highway 689, 2.2 mi (3.5 km) east of Stanley.	3.16	a1959-69 1970-74	10-29-73	2.26	191
01632300	Long Meadow near Broadway, Va.	Lat 38°34'43", long 78°45'40", Rockingham County, at bridge on State Highway 259, 3.2 mi (5.1 km) southeast of Broadway.	8.15	1950-74	10-29-73	3.45	(*)
01632950	Crooked Run tributary near Conicville, Va.	Lat 38°47'55", long 78°43'25", Shenandoah County, at culvert on State Highway 42, 2.7 mi (4.3 km) southwest of Conicville.	.31	1966-74	6- 2-74	5.15	44
01632970	Crooked Run near Mt. Jackson, Va.	Lat 38°45'44", long 78°41'06", Shenandoah County, at culvert on State Highway 263, 2.3 mi (3.7 km) west of Mt. Jackson.	6.49	1972-74	6- 2-74	5.25	862
01633500	Stony Creek at Columbia Furnace, Va.	Lat 38°51'55", long 78°37'45", Shenandoah County, at foot bridge 0.8 mi (1.3 km) south of Columbia Furnace.	79.4	1948-56‡ 1957-74	10-29-73	5.96	2,550
01633650	Pughs Run near Woodstock, Va.	Lat 38°55'48", long 78°32'43", Shenandoah County, at culvert, 4.0 mi (6.4 km) northwest of Woodstock.	3.66	1972-74	12-26-73	4.60	97
01633700	Pughs Run tributary near Columbia Furnace, Va.	Lat 38°51'17", long 78°31'22", Shenandoah County, at culvert on State Highway 623, 7.0 mi (11.3 km) northeast of Columbia Furnace.	.56	1966-74	12-26-73	3.21	35
01635200	North Fork Shenandoah River tributary near Waterlick, Va.	Lat 38°58'25", long 78°18'30", Warren County, at culvert on State Highway 55, 1.3 mi (2.1 km) west of Waterlick.	.48	1966-74	10-29-73	4.11	35
01644100	South Fork Sycolin Creek near Leesburg, Va.	Lat 39°04'15", long 77°36'35", Loudoun County, at culvert on U.S. Highway 15, 3.9 mi (6.3 km) southwest of Leesburg. Datum of gage is 380.47 ft (115.97 m) above mean sea level.	2.05	1966-74	6-20-74	4.45	186
01644200	Lenah Run at Lenah, Va.	Lat 38°57'06", long 77°34'37", Loudoun County, at bridge on U.S. Highway 50 at Lenah.	1.09	1962-74	1974	<2.6	(*)
01652400	Long Branch at Arlington, Va.	Lat 38°51'31", long 77°07'37", Fairfax County, on right bank at South Carlyn Springs Road, 500 ft (152 m) downstream from Arlington County line, 1.8 mi (2.9 km) southeast of Seven Corners.	.94	1963-74	5-12-74	20.75	510
01652430	Doctors Run at Arlington, Va.	Lat 38°51'42", long 77°06'09", Arlington County, at 8th Street, 0.6 mi (1.0 km) west of Glebe Road, Arlington.	.90	1966-74	8-30-74	3.49	400

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft³/s)
		POTOMAC RIVER BASIN--Continued					
01656200	Broad Run near Warrenton, Va.	Lat 38°48'25", long 77°48'47", Fauquier County, at bridge on State Highway 17, 7 mi (11 km) north of Warrenton.	2.94	1950-74	12-21-73	5.29	103
01656600	Broad Run tributary at Buckland, Va.	Lat 38°46'50", long 77°40'15", Prince William County, at culvert on U.S. Highway 29, 0.2 mi (0.3 km) east of Buckland. Datum of gage is 288.03 ft (87.79 m) above mean sea level.	.79	1966-74	12-21-73	5.14	64
		RAPPAHANNOCK RIVER BASIN					
01662300	Thornton River tributary near Thornton Gap, Va.	Lat 38°40'08", long 78°17'30", Rappahannock County, at culvert on U.S. Highway 211, 1.8 mi (2.9 km) east of Thornton Gap.	1.38	1967-74	10-29-73	8.60	75
01662600	Rush River tributary near Washington, Va.	Lat 38°41'40", long 78°10'10", Rappahannock County, at culvert on U.S. Highway 211 and 522, 1.2 mi (1.9 km) southwest of Washington.	.09	1966-74	5-12-74	3.41	13
01664800	Harpers Run near Morrisville, Va.	Lat 38°31'00", long 77°43'05", Fauquier County, at culvert on U.S. Highway 17, 1.7 mi (2.7 km) northwest of Morrisville. Datum of gage is 287.56 ft (87.65 m) above mean sea level.	2.28	1966-74	5-12-74	2.40	40
01665050	Pony Mountain Branch near Culpeper, Va.	Lat 38°27'04", long 77°57'24", Culpeper County, at culvert on State Highway 3, 2.7 mi (4.3 km) southeast of Culpeper.	.30	a1958-69 1970-74	9- 3-74	1.52	48
01665200	Rock Run tributary near Goldvein, Va.	Lat 38°27'45", long 77°40'10", Fauquier County, at culvert on U.S. Highway 17, 1.5 mi (2.4 km) northwest of Goldvein.	1.00	1966-74	12-21-73	3.20	62
01665300	Rapidan River near Stanardsville, Va.	Lat 38°21'13", long 78°22'29", Madison County, at bridge on State Highway 230, 5.3 mi (8.5 km) northeast of Stanardsville.	37.6	1967-74	1974	<17.0	(*)
01665400	Conway River near Stanardsville, Va.	Lat 38°19'58", long 78°23'53", Madison County, at bridge on State Highway 230, 3.4 mi (5.5 km) northeast of Stanardsville.	25.8	1967-74	1974	<18.0	(*)
01665450	South River near Stanardsville, Va.	Lat 38°18'50", long 78°25'45", Greene County, at bridge on State Highway 230, 1.3 mi (2.1 km) north of Stanardsville.	18.8	1967-74	1974	<9.9	(*)
01667600	Cedar Run tributary near Culpeper, Va.	Lat 38°23'50", long 78°00'25", Culpeper County, at culvert on U.S. Highway 522, 5 mi (8 km) south of Culpeper.	58	1966-74	9- 3-74	4.46	46
01668200	Gingoteague Run near Port Royal, Va.	Lat 38°12'40", long 77°09'10", King George County, at culvert on State Highway 623, 3.5 mi (5.6 km) northeast of Port Royal.	2.82	1966-74	7-26-74	6.95	72
01668300	Farmers Hall Creek near Champlain, Va.	Lat 38°00'05", long 76°58'40", Essex County, at culvert on U.S. Highway 17, 1.2 mi (1.9 km) southeast of Champlain. Datum of gage is 42.10 ft (12.83 m) above mean sea level.	2.16	1966-74	7-26-74	4.80	72

See footnotes at end of table, p. 231

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft^3/s)
		PIANKATANK RIVER BASIN					
01669300	Yorkers Swamp near Center Cross, Va.	Lat 37°47'10", long 76°45'55", Essex County, at culvert on U.S. Highway 17, 1.5 mi (2.4 km) southeast of Center Cross. Datum of gage is 75.11 ft (22.89 m) above mean sea level.	1.37	1966-74	9- 6-74	3.80	20
01669800	My Ladys Swamp near Saluda, Va.	Lat 37°34'34", long 76°31'30", Middlesex County, at culvert on State Highway 629, 4.4 mi (7.1 km) southeast of Saluda.	4.81	1969-74	9- 6-74	4.75	118
		YORK RIVER BASIN					
01671615	Foster Creek near Ferncliff, Va.	Lat 37°57'35", long 78°11'20", Louisa County, at culvert on U.S. Highway 250, 4.6 mi (7.4 (km) northwest of Ferncliff. Datum of gage is 424.22 ft (129.30 m) above mean sea level.	.61	a1960-68 1969-74	9- 7-74	5.04	232
01671650	Waldrop Creek near Louisa, Va.	Lat 38°00'08", long 78°04'22", Louisa County, at culvert on State Highway 632, 4.2 mi (6.8 km) southwest of Louisa. Datum of gage is 361.41 ft (110.16 m) above mean sea level.	2.85	1969-74	12-20-73	4.97	168
01671750	Harris Creek near Trevilians, Va.	Lat 38°01'02", long 78°03'06", Louisa County, at culvert on State Highway 632, 2.7 mi (4.3 km) southeast of Trevilians.	3.31	1969-74	12-20-73	4.45	(*)
01672400	South Anna River tributary near Ashland, Va.	Lat 37°48'40", long 77°34'20", Hanover County, at culvert on State Highway 54, 5.5 mi (8.8 km) northwest of Ashland.	.33	1966-74	9- 6-74	3.70	(*)
01674100	Motto River tributary near Cedon, Va.	Lat 38°05'24", long 78°31'11", Caroline County, at culvert on State Highway 605, 1.9 mi (3.1 km) north of Cedon. Datum of gage is 203.41 ft (62.00 m) above mean sea level.	1.64	1967-74	12-20-73	4.55	(*)
01674200	Reedy Creek near Dawn, Va.	Lat 37°52'55", long 77°21'35", Caroline County, at bridge on U.S. Highway 301, 3.3 mi (5.3 km) north of Dawn.	16.8	1950-69 1972-74	9- 6-74	4.46	(*)
01674700	Aylett Creek at Aylett, Va.	Lat 37°47'05", long 77°06'23", King William County, at culvert on U.S. Highway 360 at Aylett. Datum of gage is 26.72 ft (8.14 m) above mean sea level.	6.17	1969-74	9- 6-74	3.40	(*)
		JAMES RIVER BASIN					
02009500	Cattail Run near Bolar, Va.	Lat 38°16'00", long 79°40'20", Highland County, at culvert on U.S. Highway 220, 3.5 mi (5.6 km) north of Bolar. Datum of gage is 2,217.58 ft (675.92 m) above mean sea level.	.74	1966-74	5-12-74	4.50	40
02012950	Sweet Springs Creek tributary at Sweet Chalybeate, Va.	Lat 37°39'25", long 80°14'10", Alleghany County, at culvert on State Highway 311, 0.9 mi (1.4 km) north of Sweet Chalybeate. Datum of gage is 1,926.94 ft (587.33 m) above mean sea level.	.66	1966-74	7- 5-74	10.5	375

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		JAMES RIVER BASIN--Continued					
02015600	Cowpasture River near Head Waters, Va.	Lat 38°19'30", long 79°26'14", Augusta County, at bridge on U.S. Highway 250, 1.2 mi (1.9 km) west of Head Waters. Datum of gage is 1,985.65 ft (605.23 m) above mean sea level.	11.3	1949-74	12-26-73	5.05	775
02015900	Jerry Branch near Clifton Forge, Va.	Lat 37°52'23", long 79°44'36", Alleghany County, at culvert on State Highway 42, 6 mi (10 km) northeast of Clifton Forge.	.55	1967-74	5-12-74	5.90	170
02017300	Craig Creek at New Castle, Va.	Lat 37°30'06", long 80°06'18", Craig County, at bridge on State Highway 616, at New Castle. Datum of gage is 1,245.69 ft (379.69 m) above mean sea level.	112	1967-74	12-26-73	9.06	2,200
02017400	Johns Creek tributary near New Castle, Va.	Lat 37°30'30", long 80°11'20", Craig County, at culvert on State Highway 311, 4.2 mi (6.8 km) west of New Castle. Datum of gage is 1,551.65 ft (472.94 m) above mean sea level.	1.57	1967-74	12-26-73	5.54	(*)
02017700	Craig Creek tributary near New Castle, Va.	Lat 37°33'21", long 79°59'52", Craig County, at culvert on State Highway 606, 7.1 mi (11.4 km) northeast of New Castle.	2.05	1968-74	5-12-74	6.30	244
02018700	Campbell Branch near Fincastle, Va.	Lat 37°32'37", long 79°57'28", Botetourt County, at culvert on State Highway 606, 5.3 mi (8.5 km) northwest of Fincastle.	1.51	1968-74	1974	<2.5	<55
02018800	North Fork near Fincastle, Va.	Lat 37°32'07", long 79°56'03", Botetourt County, at culvert on State Highway 606, 3.9 mi (6.3 km) northwest of Fincastle. Datum of gage is 1,248.65 ft (380.59 m) above mean sea level.	4.17	1968-74	5-12-74	4.85	259
02019400	Mill Creek near Buchanan, Va.	Lat 37°29'48", long 79°45'28", Botetourt County, at bridge on State Highway 636, 5 mi (8 km) southwest of Buchanan.	29.6	1950-74	1974	<5.4	<1,200
02020100	Renick Run near Buchanan, Va.	Lat 37°35'27", long 79°38'04", Botetourt County, at culvert on Frontage Road of Interstate Highway 81, 4.8 mi (7.7 km) northeast of Buchanan. Datum of gage is 1,261.85 ft (384.61 m) above mean sea level.	2.06	1967-74	12-21-73	3.48	148
02020200	Calfpasture River near West Augusta Va.	Lat 38°16'24", long 79°18'02", Augusta County, at bridge on U.S. Highway 250, 1.5 mi (2.4 km) east of West Augusta. Datum of gage is 1,897.46 ft (578.35 m) above mean sea level.	12.8	1949-74	12-26-73	3.41	756
02021100	Brattons Run tributary near Goshen, Va.	Lat 37°55'55", long 79°34'40", Rockbridge County, at culvert on State Highway 780, 5.8 mi (9.3 km) southwest of Goshen.	1.62	1966-74	5-12-74	3.52	69
02021700	Cedar Grove Branch near Rockbridge Baths, Va.	Lat 37°53'00", long 79°23'10", Rockbridge County, at culvert on State Highway 39, 1.8 mi (2.9 km) southeast of Rockbridge Baths. Datum of gage is 1,041.22 ft (317.36 m) above mean sea level.	12.3	1967-74	9- 6-74	9.75	735

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		JAMES RIVER BASIN--Continued					
02023300	South River near Steeles Tavern, Va.	Lat 37°55'50", long 79°09'55", Augusta County, at bridge on State Highway 608, 3 mi (5 km) east of Steeles Tavern.	15.7	1951-74	12-21-73	3.75	700
02025800	Burton Creek tributary at Lynchburg, Va.	Lat 37°21'10", long 79°11'05", Campbell County, at culvert on access road just west of U.S. Highway 29, 0.6 mi (1.0 km) south of city limits of Lynchburg. Datum of gage is 761.87 ft (232.22 m) above mean sea level.	2.36	1966-74	9- 6-74	5.65	(*)
02027700	Buffalo River tributary near Amherst, Va.	Lat 37°33'45", long 78°57'35", Amherst County, at culvert on U.S. Highway 60, 5.2 mi (8.4 km) southeast of Amherst.	.46	1966-74	12-21-73	3.09	23
02028700	Cove Creek near Covesville, Va.	Lat 37°52'06", long 78°43'32", Albemarle County, at culvert on U.S. Highway 29, 1.8 mi (2.9 km) southwest of Covesville.	4.0	1950-69 1972-74	9- 7-74	6.00	(*)
02028800	Ballinger Creek at Esmont, Va.	Lat 37°49'39", long 78°36'32", Albemarle County, at bridge on State Highway 6, at Esmont.	5.42	1967-74	9- 7-74	12.24	(*)
02028900	Miller Creek near Scottsville, Va.	Lat 37°48'30", long 78°30'46", Albemarle County, at bridge on State Highway 6, 1.5 mi (2.4 km) west of Scottsville.	6.60	1967-74	9- 7-74	9.15	(*)
02029200	North Fork Hardware River at Red Hill, Va.	Lat 37°58'03", long 78°37'04", Albemarle County, at bridge on U.S. Highway 29, 0.5 mi (0.8 km) west of Red Hill. Datum of gage is 577.11 ft (175.90 m) above mean sea level.	11.0	1950-74	12-21-73	5.64	225
02029400	South Branch of North Fork Hardware River near North Garden, Va.	Lat 37°57'21", long 78°39'35", Albemarle County, at culvert on U.S. Highway 29 at Crossroads, 1.5 mi (2.4 km) northwest of North Garden. Datum of gage is 681.11 ft (207.60 m) above mean sea level.	6.59	1950-69 1972-74	12-21-73	3.95	(*)
02029410	Sowell Branch near Charlottesville, Va.	Lat 37°56'30", long 78°32'16", Albemarle County, at culvert on State Highway 20, 6.8 mi (10.9 km) southwest of Charlottesville.	1.55	1967-74	1974	<3.0	<60
02029430	Harris Creek near Keene, Va.	Lat 37°53'05", long 78°33'00", Albemarle County, at bridge on State Highway 20, 1.4 mi (2.3 km) north of Keene.	1.71	1967-74	9- 7-74	4.81	(*)
02029450	Thomas Creek at Keene, Va.	Lat 37°52'25", long 78°33'10", Albemarle County, at culvert on State Highway 20, 0.7 mi (1.1 km) north of Keene.	.28	1966-74	9- 7-74	2.45	19
02030800	Stockton Creek near Afton, Va.	Lat 38°01'48", long 78°48'30", Albemarle County, at culvert on State Highway 6, 1.7 mi (2.7 km) east of Afton. Datum of gage is 835.27 ft (254.59 m) above mean sea level.	2.80	1967-74	5-12-74	5.35	150
02030900	Powells Creek near Crozet, Va.	Lat 38°04'50", long 78°43'02", Albemarle County, at bridge on State Highway 684, 1.2 mi (1.9 km) northwest of Crozet.	2.32	1967-74	1974	<3.0	(*)

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		JAMES RIVER BASIN--Continued					
02031500	North Fork Moormans River near Whitehall, Va.	Lat 38°08'25", long 78°45'05", Albemarle County, 0.8 mi (1.3 km) upstream from South Fork Rivanna River Reservoir dam, and 1.5 mi (2.4 km) west of Whitehall.	11.4	1952-63‡ 1964-74	12-21-73	4.66	596
02032200	Doyles River near Whitehall, Va.	Lat 38°12'10", long 78°40'17", Albemarle County, at bridge on State Highway 810, 5.9 mi (9.5 km) north of Whitehall. Datum of gage is 928.08 ft (282.88 m) above mean sea level.	6.70	1967-74	1974	<10.1	(*)
02032300	Muddy Run near Stanardsville, Va.	Lat 38°14'05", long 78°37'02", Albemarle County, at bridge on State Highway 810, 11 mi (18 km) southwest of Stanardsville.	3.36	1967-74	1974	<6.0	<1,400
02032530	Parker Branch near Stanardsville, Va.	Lat 38°17'10", long 78°30'50", Greene County, at culvert on State Highway 810, 4.3 mi (6.9 km) west of Stanardsville.	3.24	1967-74	10-29-73	6.19	572
02032540	Haneytown Creek near Stanardsville, Va.	Lat 38°16'48", long 78°30'50", Greene County, at bridge on State Highway 810, 4.5 mi (7.2 km) west of Stanardsville.	4.45	1967-74	1974	<12.0	<290
02032550	Lynch River at Nortonsville, Va.	Lat 38°14'16", long 78°32'32", Albemarle County, at bridge on State Highway 810, 7 mi (11 km) southwest of Stanardsville. Datum of gage is 591.70 ft (180.35 m) above mean sea level.	13.6	1967-74	6- 2-74	12.40	1,600
02032700	Schenks Branch at Charlottesville, Va.	Lat 38°02'32", long 78°28'30", Charlottesville City, at bridge just upstream from U.S. Highway 250 bypass. Datum of gage is 371.63 ft (113.27 m) above mean sea level.	1.34	1950-74	9- 7-74	4.52	(*)
02033300	Moores Creek near Charlottesville, Va.	Lat 38°00'25", long 78°34'25", Albemarle County, at culvert on access road, 150 ft (46 m) north of U.S. Highway 29, and 4 mi (6 km) southwest of Charlottesville.	3.52	1967-74	1974	<13.8	<100
02033700	Henderson Creek near Shadwell, Va.	Lat 37°59'05", long 78°24'05", Albemarle County, at culvert on State Highway 729, 2.0 mi (3.2 km) south of Shadwell. Datum of gage is 280.20 ft (85.40 m) above mean sea level.	1.76	1966-74	9- 7-74	4.85	(*)
02034050	Hunters Branch near Palmyra, Va.	Lat 37°56'48", long 78°14'30", Fluvanna County, at culvert on U.S. Highway 15, 6.1 mi (9.8 km) north of Palmyra. Datum of gage is 398.68 ft (121.52 m) above mean sea level.	1.63	1967-74	12-21-73	4.15	154
02034250	Whispering Creek at Sprouses Corner, Va.	Lat 37°31'31", long 78°29'03", Buckingham County, at culvert on U.S. Highway 60, 0.5 mi (0.8 km) southeast of Sprouses Corner.	.43	1962-74	5-10-74	3.29	40
02035400	Big Lickinghole Creek tributary near Ferncliff, Va.	Lat 37°49'34", long 77°58'23", Goochland County, at bridge on U.S. Highway 250, 10.5 mi (16.9 km) southeast of Ferncliff. Datum of gage is 253.68 ft (77.32 m) above mean sea level.	.55	1962-74	1974	<2.6	<50

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Dis-charge (ft³/s)
		JAMES RIVER BASIN--Continued					
02035450	Rocketts Creek tributary near Gum Springs, Va.	Lat 37°47'15", long 77°54'40", Goochland County, at culvert on U.S. Highway 250, 1.2 mi (1.9 km) northwest of Gum Springs. Datum of gage is 291.65 ft (88.89 m) above mean sea level.	0.34	1966-74	9- 6-74	4.10	36
02037800	Falling Creek near Midlothian, Va.	Lat 37°27'15", long 77°35'20", Chesterfield County, at bridge on State Highway 653, 4 mi (6 km) southeast of Midlothian.	18.1	1951-74	12-21-73	5.00	360
02038800	Appomattox River near Appomattox, Va.	Lat 37°22'55", long 78°47'24", Appomattox County, at bridge on State Highway 24, 3.0 mi (4.8 km) northeast of Appomattox.	5.79	1955-74	12-21-73	7.31	1,770
02040500	Flat Creek near Amelia, Va.	Lat 37°23'27", long 78°03'45", Amelia County, at bridge on State Highway 681, 6.0 mi (9.7 km) northwest of Amelia.	73.0	1946-70 1972-74	12-21-73	8.67	(*)
02040600	Nibbs Creek tributary near Amelia, Va.	Lat 37°23'45", long 77°58'20", Amelia County, at culvert on State Highway 609, 3.8 mi (6.1 km) north of Amelia.	.35	1966-74	12-21-73	6.53	91
02042200	Glebe Creek tributary near Charles City, Va.	Lat 37°22'05", long 77°04'15", Charles City County, at culvert on State Highway 155 2.0 mi (3.2 km) north of Charles City. Datum of gage is 52.31 ft (15.94 m) above mean sea level.	b .7	1948, 1951-74	9- 6-74	1.95	7
02042250	Bailey Branch tributary at Spring Grove, Va.	Lat 37°10'29", long 76°59'13", Surry County, at culvert on State Highway 10, 1.0 mi (1.6 km) northwest of Spring Grove. Datum of gage is 61.39 ft (18.71 m) above mean sea level.	.71	1967-74	1-30-74	3.19	(*)
02042300	Horsepen Branch at Richmond, Va.	Lat 37°35'45", long 77°30'40", Henrico County, at culvert on U.S. Highway 250 (Broad Street), at Richmond.	1.35	1965-74	9- 6-74	3.35	508
02042400	Jordan Branch at Richmond, Va.	Lat 37°35'10", long 77°29'55", Henrico County, at bridge on U.S. Highway 250 (Broad Street), at Richmond.	2.41	1965-74	1974	<10.0	(*)
02042700	Collins Run near Providence Forge, Va.	Lat 37°23'59", long 77°02'54", Charles City County, at bridge on State Highway 155, 2.8 mi (4.5 km) south of Providence Forge. Datum of gage is 32.74 ft (9.98 m) above mean sea level.	2.84	1948, 1951-74	9- 6-74	4.23	145
02042710	Collins Run tributary near Providence Forge, Va	Lat 37°24'15", long 77°02'50", Charles City County, at culvert on State Highway 155, 2.5 mi (4.0 km) south of Providence Forge. Datum of gage is 49.96 ft (15.23 m) above mean sea level.	.28	1966-74	9- 6-74	3.47	20
02042780	West Branch Long Hill Swamp near Lightfoot, Va.	Lat 37°18'50", long 77°46'01", James City County, at culvert on State Highway 612, 2.0 mi (3.2 km) south of Lightfoot.	2.47	1970-74	9- 6-74	3.48	53

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Dis-charge (ft³/s)
		CHOWAN RIVER BASIN					
02044200	Falls Creek tributary near Victoria, Va.	Lat 37°02'04", long 78°10'26", Lunenburg County, at culvert on State Highway 49, 3.6 mi (5.8 km) northeast of Victoria.	0.34	1962-74	7-26-74	4.85	92
02044400	Hurricane Branch at Blackstone, Va.	Lat 37°04'47", long 77°58'55", Nottoway County, at culvert on State Highway 40, 0.3 mi (0.5 km) east of Blackstone.	1.61	1967-74	7-26-74	6.35	134
02046200	Millrun Branch near McKenney, Va.	Lat 36°56'47", long 77°34'41", Dinwiddie County, at bridge on State Highway 40, 9.3 mi (15.0 km) east of McKenney. Datum of gage is 172.37 ft (52.54 m) above mean sea level.	2.29	1962-74	1974	<2.0	(*)
02046400	Jones Hole Swamp tributary near Carson, Va.	Lat 37°04'13", long 77°20'30", Prince George County, at culvert on State Highway 35, 3.8 mi (6.1 km) northeast of Carson. Datum of gage is 89.35 ft (27.23 m) above mean sea level.	3.02	1967-74	9- 6-74	3.54	40
02046500	Anderson Branch at Sussex, Va.	Lat 36°55'10", long 77°15'45", Sussex County, at bridge on State Highway 40, 1.0 mi (1.6 km) east of Sussex.	5.35	1949-56+ 1967-74	12-21-73	4.42	22
02046800	Three Creek tributary near Drewryville, Va.	Lat 36°41'36", long 77°20'58", Southampton County, at bridge on U.S. Highway 58, 2.8 mi (4.5 km) southwest of Drewryville. Datum of gage is 76.10 ft (23.20 m) above mean sea level.	1.25	1962-74	1-29-74	2.72	(*)
02046900	Musgrave Branch near Drewryville, Va.	Lat 36°42'13", long 77°16'29", Southampton County, at culvert on U.S. Highway 58, 2.0 mi (3.2 km) east of Drewryville.	1.99	1966-74	1-29-74	4.57	(*)
02048400	Seacock Creek near Ivor, Va.	Lat 36°55'28", long 76°55'48", Southampton County, at bridge on State Highway 618, 2 mi (3 km) northwest of Ivor.	27.4	1950-74	1-30-74	3.85	245
02049700	Cypress Swamp near Burdette, Va.	Lat 36°44'29", long 76°56'18", Southampton County, at bridge on State Highway 635, 3 mi (5 km) southwest of Burdette. Datum of gage is 18.36 ft (5.60 m) above mean sea level.	8.55	1950-74	1-29-74	3.10	53
02050050	Blackwater River tributary near Holland, Va.	Lat 36°38'44", long 76°51'29", Nansemond County, at culvert on State Highway 189, 4.9 mi (7.9 km) southwest of Holland. Datum of gage is 29.25 ft (8.92 m) above mean sea level.	2.76	1967-74	3-30-74	4.90	105
02050400	North Meherrin River near Briery, Va.	Lat 37°04'20", long 78°27'45", Charlotte County, at culvert on U.S. Highway 360, 1.3 mi (2.1 km) south of Briery, and 2.5 mi (4.0 km) northeast of Keysville.	1.19	1966-74	9- 6-74	5.10	(*)
02051650	Rocky Run near Dolphin, Va.	Lat 36°47'35", long 77°49'35", Brunswick County, at culvert on State Highway 641, 3.2 mi (5.1 km) southwest of Dolphin.	1.41	1966-74	7-26-74	6.52	131
02051700	Rocky Run at Lawrenceville, Va.	Lat 36°46'14", long 77°50'28", Brunswick County, at culvert on State Highway 642, 0.4 mi (0.6 km) northeast of Lawrenceville.	6.16	1954-63 1967-74	9- 7-74	6.75	(*)

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Dis-charge (ft^3/s)
		ROANOKE RIVER BASIN					
02057700	Powder Mill Creek at Rocky Mount, Va.	Lat 37°00'26", long 79°52'25", Franklin County, at culvert on U.S. Highway 220 bypass at Rocky Mount.	0.64	1967-74	12-21-73	14.20	94
02059450	South Fork Goose Creek at Montvale, Va.	Lat 37°22'47", long 79°43'50", Bedford County, at culvert on State Highway 607, 0.5 mi (0.8 km) south of Montvale. Datum of gage is 938.02 ft (285.91 m) above mean sea level.	7.56	1967-74	12-21-73	3.38	(*)
02061300	Nininger Creek near Bedford, Va.	Lat 37°16'26", long 79°29'31", Bedford County, at bridge on State Highway 43, 4.5 mi (7.2 km) southeast of Bedford.	4.77	1949-74	4- 4-74	3.59	562
02063600	Button Creek near Rustburg, Va.	Lat 37°17'25", long 79°04'10", Campbell County, at culvert on State Highway 24, 2.0 mi (3.2 km) northeast of Rustburg.	.59	1966-74	1974	<3.3	<40
02063700	Button Creek tributary near Rustburg, Va.	Lat 37°17'05", long 79°04'27", Campbell County, at culvert on State Highway 24, 2.0 mi (3.2 km) northeast of Rustburg.	.16	1962-74	1974	< .9	(*)
02065100	Snake Creek near Brookneal, Va.	Lat 37°00'42", long 78°57'52", Halifax County, at culvert on U.S. Highway 501, 2.1 mi (3.4 km) south of Brookneal.	1.68	1967-74	9- 6-74	6.10	280
02065300	Right Hand Fork near Appomattox, Va.	Lat 37°16'12", long 78°49'14", Appomattox County, at culvert on State Highway 727, 5.2 mi (8.4 km) south of Appomattox.	2.08	1967-74	9- 6-74	5.13	124
02066600	Sandy Creek near Wylliesburg, Va.	Lat 36°50'35", long 78°38'30", Charlotte County, at culvert on State Highway 608, 3.0 mi (4.8 km) southwest of Wylliesburg.	8.84	1966-74	9- 6-74	10.80	(*)
02067810	Maple Swamp Branch near Meadows of Dan, Va.	Lat 36°44'10", long 80°26'28", Patrick County, at culvert on U.S. Highway 58, 1.8 mi (2.9 km) west of Meadows of Dan.	.49	1967-74	4- 4-74	3.87	51
02069600	Anglin Branch near Stuart, Va.	Lat 36°38'15", long 80°12'55", Patrick County, at culvert on U.S. Highway 58, 3 mi (5 km) east of Stuart.	3.10	1967-74	4- 4-74	3.90	108
02071800	Nicholas Creek near Ferrum, Va.	Lat 36°52'11", long 80°03'10", Franklin County, at bridge on State Highway 605, 4.1 mi (6.6 km) southwest of Ferrum.	12.2	1949-72 1974	9- 6-74	9.72	(*)
02075350	Powells Creek near Turbeville, Va.	Lat 36°34'50", long 79°11'20", Halifax County, at culvert on U.S. Highway 58, 8.8 mi (14.2 km) southwest of Turbeville. Datum of gage is 383.95 ft (117.03 m) above mean sea level.	.28	a1958-69 1970-74	9- 6-74	4.81	219
02075900	Lawsons Creek at Turbeville, Va.	Lat 36°36'41", long 79°01'28", Halifax County, at culvert on State Highway 658, 1 mi (2 km) southeast of Turbeville.	b8.7	1951-74	9- 6-74	13.33	(*)
02076200	Bearskin Creek near Chatham, Va.	Lat 36°50'30", long 79°29'05", Pittsylvania County, at culvert on State Highway 57, 4.5 mi (7.2 km) west of Chatham.	4.06	1967-74	9- 6-74	6.45	(*)

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft³/s)
		ROANOKE RIVER BASIN--Continued					
02076600	Whitethorn Creek tributary at Gretna, Va.	Lat 36°56'00", long 79°22'10", Pittsylvania County, at culvert on U.S. Highway 29, 0.9 mi (1.4 km) southwest of Gretna. Datum of gage is 725.26 ft (221.06 m) above mean sea level.	1.93	1966-74	9- 6-74	4.45	190
02076700	Blacks Creek near Mt. Airy, Va.	Lat 36°56'40", long 79°09'56", Pittsylvania County, at culvert on State Highway 40, 1.5 mi (2.4 km) east of Mt. Airy.	3.44	1966-74	9- 6-74	6.30	355
02079660	Jolly Hollow Branch at Boydton, Va.	Lat 36°40'38", long 78°23'13", Mecklenburg County, at bridge on State Highway 92, 0.5 mi (0.8 km) north of Boydton.	3.60	1954-74	9- 6-74	4.49	(*)
02079720	Smith Creek tributary near South Hill, Va.	Lat 36°33'50", long 78°12'10", Mecklenburg County, at culvert on U.S. Highway 1, 12 mi (19 km) southwest of South Hill. Datum of gage is 249.71 ft (76.11 m) above mean sea level.	.39	1966-74	9- 6-74	5.96	178
		KANAWHA RIVER BASIN					
03162700	Wallen Creek near Trout Dale, Va.	Lat 36°38'00", long 81°24'10", Grayson County, at culvert on State Highway 16, 5 mi (8 km) southeast of Trout Dale.	2.23	1966-74	6-27-74	5.55	134
03162800	Mill Creek near Trout Dale, Va.	Lat 36°40'06", long 81°24'24", Grayson County, at bridge on State Highway 16, 3 mi (5 km) southeast of Trout Dale.	5.32	1951-74	6-27-74	2.59	223
03162810	Saddle Creek tributary near Independence, Va.	Lat 36°37'11", long 81°12'55", Grayson County, at culvert on U.S. Highway 58, 3 mi (5 km) west of Independence.	.39	1966-74	1974	<5.0	(*)
03165200	Mill Creek tributary at Galax, Va.	Lat 36°40'38", long 80°54'02", Galax City, at culvert on U.S. Highways 58 and 221.	1.05	1966-74	1974	<3.0	<65
03165700	Cripple Creek at Cedar Springs, Va.	Lat 36°49'31", long 81°16'45", Wythe County, at bridge on State Highway 749, 0.6 mi (1.0 km) southeast of Cedar Springs.	11.3	1967-74	6-27-74	14.32	522
03165800	Sugar Run near Speedwell, Va.	Lat 36°49'45", long 81°10'10", Wythe County, at bridge on State Highway 684, 1.1 mi (1.8 km) north of Speedwell.	3.57	1967-74	6-27-74	14.80	(*)
03167300	Mira Fork tributary near Dugspur, Va.	Lat 36°50'16", long 80°35'47", Carroll County, at culvert on U.S. Highway 221, 2.2 mi (3.5 km) northeast of Dugspur.	.62	1967-74	1974	<3.0	<50
03167700	Beaverdam Creek at Hillsville, Va.	Lat 36°46'05", long 80°43'33", Carroll County, at culvert on State Highway 1009, 0.2 mi (0.3 km) east of Hillsville corporation limits.	4.75	1968-74	4- 4-74	3.27	(*)
03168600	Peak Creek tributary near Pulaski, Va.	Lat 37°04'19", long 80°46'25", Pulaski County, at culvert on State Highway 636, 2 mi (3 km) north of Pulaski. Datum of gage is 1,983.82 ft (604.67 m, above mean sea level.	.61	1949, 1951-74	12-20-73	3.93	(*)

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		KANAWHA RIVER BASIN--Continued					
03168750	Thorne Springs Branch near Dublin, Va.	Lat 37°05'30", long 80°44'34", Pulaski County, at pond dam just upstream from U.S. Highway 11, 3.3 mi (5.3 km) southwest of Dublin.	4.77	a1957-69 1970-74	5-12-74	1.99	85
03169200	Dodd Creek tributary near Floyd, Va.	Lat 36°52'21", long 80°20'00", Floyd County, at culvert on State Highway 8, 2.8 mi (4.5 km) southwest of Floyd. Datum of gage is 2,390.45 ft (728.61 m) above mean sea level.	.96	1967-74	9- 6-74	4.10	(*)
03171800	Helveys Mill Creek tributary at Point Pleasant, Va.	Lat 37°07'24", long 81°01'16", Bland County, at culvert on State Highway 42, 0.2 mi (0.3 km) west of Point Pleasant.	.38	1957-74	4- 4-74	1.98	(*)
		BIG SANDY RIVER BASIN					
03207400	Prater Creek at Vansant, Va.	Lat 37°13'05", long 82°06'10", Buchanan County, at bridge on State Highway 620, 1 mi (2 km) south of Vansant. Datum of of gage is 1,152.77 ft (351.36 m) above mean sea level.	19.8	1951-74	1-11-74	4.66	995
		TENNESSEE RIVER BASIN					
03471100	Dickey Creek at Sugar Grove, Va.	Lat 36°46'22", long 81°25'10", Smyth County, at bridge on State Highway 16, 0.4 mi (0.6 km) southwest of Sugar Grove.	7.28	1967-74	6-27-74	16.35	(*)
03471200	South Fork Holston River at Teas, Va.	Lat 36°46'22", long 81°27'05", Smyth County, at bridge on State Highway 601, at Teas. Datum of gage is 2,496.96 ft (761.07 m) above mean sea level.	31.1	1967-74	6-27-74	13.64	(*)
03472500	Beaverdam Creek at Damascus, Va.	Lat 36°37'40", long 81°47'28", Washington County, at Damascus, 0.6 mi (1.0 km) upstream from mouth. Datum of gage is 1,946.66 ft (593.34 m) above mean sea level.	56.0	1948-59‡ 1960-74	4- 4-74	5.07	3,240
03473500	Middle Fork Holston River at Groseclose, Va.	Lat 36°53'19", long 81°20'51", Smyth County, 10 ft (3 m) downstream from bridge on State Highway 679, at Groseclose. Datum of gage is 2,442.86 ft (744.58 m) above mean sea level.	7.39	1948-57‡ 1958-74	6-27-74	3.51	113
03473600	Middle Fork Holston River near Groseclose, Va.	Lat 36°53'10", long 81°22'25", Smyth County, at bridge on U.S. Highway 11, 1.5 mi (2.4 km) west of Groseclose. Datum of gage is 2,379.26 ft (725.20 m) above mean sea level.	13.3	1967-74	1974	<11.5	(*)
03473800	Staley Creek near Marion, Va.	Lat 36°49'25", long 81°28'25", Smyth County, at bridge on State Highway 688, 2 mi (3 km) southeast of Marion.	8.33	1951-74	6-27-74	3.07	204
03474700	Hutton Creek near Chilhowie, Va.	Lat 36°47'00", long 81°44'05", Washington County, at bridge on U.S. Highway 11, 3.3 mi (5.3 km) southwest of Chilhowie.	8.32	1967-74	12-26-73	10.70	(*)

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		TENNESSEE RIVER BASIN--Continued					
03474800	Hall Creek near Glade Spring, Va.	Lat 36°45'47", long 81°48'15", Washington County, at bridge on U.S. Highway 11, 2.5 mi (4.0 km) south of Glade Spring.	7.90	1967-74	1974	<9.6	(*)
03475600	Cedar Creek near Meadowview, Va.	Lat 36°44'50", long 81°51'20", Washington County, at culvert on U.S. Highway 11, 1.2 mi (1.9 km) south of Meadowview. Datum of gage is 2,034.66 ft (620.16 m) above mean sea level.	3.38	1967-74	7-10-74	6.67	(*)
03475700	Spring Creek near Abingdon, Va.	Lat 36°40'43", long 82°02'29", Washington County, at culvert on U.S. Highway 11, 3.8 mi (6.1 km) southwest of Abingdon. Datum of gage is 1,977.54 ft (602.75 m) above mean sea level.	2.99	1967-74	1-11-74	3.75	(*)
03487800	Lick Creek near Chatham Hill, Va.	Lat 36°57'44", long 81°28'21", Smyth County, 270 ft (82 m) upstream from bridge on State Highway 42, 2.9 mi (4.7 km) east of Chatham Hill. Datum of gage is 2,076.97 ft (633.06 m) above mean sea level.	25.5	1966-68‡ 1969-74	4- 4-74	4.93	875
03487850	Possum Jaw Creek near Chatham Hill, Va.	Lat 36°57'41", long 81°27'52", Smyth County, at bridge on State Highway 42, 3.3 mi (5.3 km) east of Chatham Hill. Datum of gage is 2,084.80 ft (635.45 m) above mean sea level.	4.36	1967-74	3-20-74	8.96	(*)
03487900	Sprouts Creek near Chatham Hill, Va.	Lat 36°58'10", long 81°30'32", Smyth County, at culvert on State Highway 42, 1.2 mi (1.9 km) northeast of Chatham Hill.	7.64	1967-74	12-26-73	3.75	(*)
03488500	North Fork Holston River at Holston, Va.	Lat 36°46'29", long 82°04'22", Washington County, at bridge on U.S. Highway 19, 0.5 mi (0.8 km) east of Holston. Datum of gage is 1,437.11 ft (438.03 m) above mean sea level.	402	1952-59‡ 1960-74	12-26-73	10.58	9,440
03489700	Fleenor Branch near Bristol, Va.	Lat 36°38'10", long 82°15'20", Washington County, at culvert on U.S. Highways 58 and 421, 5.0 mi (8.0 km) northwest of Bristol.	.59	1966-74	1974	<4.3	<30
03489800	Cove Creek near Shelleys, Va.	Lat 36°39'13", long 82°21'16", Scott County, at bridge on U.S. Highway 58, 2 mi (3 km) north of Shelleys. Datum of gage is 1,361.53 ft (421.09 m) above mean sea level.	17.3	1951-74	4- 4-74	6.20	1,680
03489850	Cove Creek near Hilton, Va.	Lat 36°39'08", long 82°21'53", Scott County, at bridge on State Highway 803, 7.2 mi (11.6 km) east of Hilton. Datum of gage is 1,354.40 ft (412.82 m) above mean sea level.	17.6	1967-68‡ 1969-74	1-11-74	4.68	(*)
03489870	Big Moccasin Creek at Collinwood, Va.	Lat 36°44'16", long 82°19'25", Russell County, at bridge on State Highway 612, at Collinwood. Datum of gage is 1,796.34 ft (547.52 m) above mean sea level.	41.9	1967-68‡ 1969-74	12-26-73	5.35	(*)

See footnotes at end of table, p. 231.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft³/s)
		TENNESSEE RIVER BASIN--Continued					
03489900	Big Moccasin Creek near Gate City, Va.	Lat 36°38'47", long 82°33'12", Scott County, at bridge on State Highway 71, 1.6 mi (2.6 km) east of Gate City. Datum of gage is 1,267.64 ft (386.38 m) above mean sea level.	79.6	1953-59♦ 1960-66 1967-68♦ 1969-74	1- 1-74	7.62	2,610
03523000	Cedar Creek near Lebanon, Va.	Lat 36°54'29", long 82°02'20", Russell County, 200 ft (61 m) upstream from bridge on U.S. Highway 19, 2.3 mi (3.7 km) east of Lebanon. Datum of gage is 1,928.96 ft (587.95 m) above mean sea level.	51.5	1953-59♦ 1960-74	12-26-73	3.80	2,390
03524500	Guest River at Coeburn, Va.	Lat 36°55'45", long 82°27'23", Wise County, at bridge on State Highway 72, 1.0 mi (1.6 km) southwest of Coeburn. Datum of gage is 1,925.80 ft (586.98 m) above mean sea level.	87.3	1950-59♦ 1960-74	1-11-74	10.96	3,970
03525000	Stony Creek at Fort Blackmore, Va.	Lat 36°46'30", long 82°34'50", Scott County, 1,000 ft (305 m) upstream from bridge on State Highway 66, at Fort Blackmore. Datum of gage is 1,270.17 ft (387.15 m) above mean sea level.	41.4	1950-52♦ 1953-74	1-11-74	5.37	1,770
03525800	Copper Creek tributary near Dickensonville, Va.	Lat 36°49'50", long 82°12'40", Russell County, at culvert on U.S. Highway Alternate 58, 1.1 mi (1.8 km) southeast of Dickensonville.	.99	1966-74	12-26-73	5.05	102
03526000	Copper Creek near Gate City, Va.	Lat 36°40'26", long 82°33'57", Scott County, on right bank at upstream side of highway bridge, 2.6 mi (4.2 km) northeast of Gate City.	106	1948-72♦ 1973-74	1- 1-74	10.76	3,890
03529500	Powell River at Big Stone Gap, Va.	Lat 36°52'08", long 82°46'32", Wise County, at bridge on U.S. Highway 23, at Big Stone Gap. Datum of gage is 1,459.07 ft (444.72 m) above mean sea level.	112	1945-59♦ 1960-74	11-27-73	7.86	7,550
03530000	South Fork Powell River at Big Stone Gap, Va.	Lat 36°51'54", long 82°46'16", Wise County, at bridge on U.S. Highway 23, at Big Stone Gap.	b40	1945-47♦ 1951-74	6-22-74	8.27	3,290
03530500	North Fork Powell River at Pennington Gap, Va.	Lat 36°46'26", long 83°01'59", Lee County, at bridge on State Highway 621, 0.8 mi (1.3 km) north of Pennington Gap.	b70	1945-51♦ 1952-74	11-27-73	10.20	6,420

* Discharge not determined.
< Less than.
♦ Operated as a continuous-record gaging station.
a Records furnished by U.S. Department of Agriculture, Soil Conservation Service.
b Approximately.

Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*).

Discharge measurements made at miscellaneous sites

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
Part 1B		NASSAWADOX CREEK BASIN				
Nassawadox Creek a/	Chesapeake Bay	Lat 37°31'31", long 75°52'37", Northampton County, at culvert on State Highway 606, 2.7 mi (4.3 km) upstream from Kelly Cove, and 3.5 mi (5.6 km) north of Nassawadox.	b4.2	1968-73	10-11-73 11-15-73 12- 5-73 1-10-74 2- 5-74 3-13-74 5- 1-74 6-12-74 7-24-74 8-28-74	*0.64 *.63 *.80 6.72 *3.71 *5.71 *2.03 *.88 *.34 *.73
		POTOMAC RIVER BASIN				
Long Marsh Run a/	Shenandoah River	Lat 39°11'08", long 77°56'24", Clark County, at bridge on U.S. Highway 340, 3.0 mi (4.8 km) north of Berryville.	-	-	4-18-73 4-18-73	*11.9 *11.2
Sugarland Run	Potomac River	Lat 38°58'00", long 77°22'17", Fairfax County, at bridge 0.9 mi (1.4 km) east of center of Herndon.	3.36	1965-70, 1972-73	9-18-74	*.24
South Fork Little Difficult Run	Little Difficult Run	Lat 38°53'52", long 77°21'12", Fairfax County, at bridge on Fox Mill Road, 1.2 mi (1.9 km) upstream from mouth, and 3.2 mi (5.1 km) northwest of Fairfax.	1.59	1966-73	9-18-74	*.29
Piney Branch	Difficult Run	Lat 38°54'06", long 77°15'57", Fairfax County, on right bank 30 ft (9 m) downstream from North Center Street, at Vienna.	.29	1961-73	9-25-74	*.12
Colvin Run	Difficult Run	Lat 38°57'56", long 77°18'36", Fairfax County, on right bank 10 ft (3 m) downstream from highway bridge, 0.8 mi (1.3 km) east of Reston.	5.09	1961-73	9-18-74	1.9
Scott Run	Potomac River	Lat 38°57'32", long 77°12'21", Fairfax County, on left bank at bridge on Old Georgetown Pike, 0.8 mi (1.3 km) upstream from mouth, and 2.3 mi (3.7 km) northwest of McLean.	4.69	1961-70, 1972-73	9-18-74	*1.4
Pimmit Run	Potomac River	Lat 38°54'41", long 77°11'05", Fairfax County, at bridge at Great Falls Road, 1.1 mi (1.8 km) north of city boundary of Falls Church.	2.87	1960-73	9-18-74	*.36
Pimmit Run	Potomac River	Lat 38°56'05", long 77°08'26", Fairfax County, on right bank 150 ft (46 m) downstream from bridge on Kirby Road, 150 ft (46 m) upstream from Little Pimmit Run, and 0.8 mi (1.3 km) northwest of Arlington County boundary.	8.12	1960-73	9-25-74	*1.9
Little Pimmit Run tributary	Little Pimmit Run	Lat 38°54'27", long 77°08'18", Arlington County, about 500 ft (150 m) upstream from Little Falls Road.	.41	1963-73	9-18-74	*.08
Little Pimmit Run	Pimmit Run	Lat 38°55'22", long 77°08'43", Fairfax County, at bridge on State Highway 689, 0.4 mi (0.6 km) northwest of Arlington County boundary.	2.31	1960-73	9-18-74	*.35

See footnotes at end of table, p. 236.

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		POTOMAC RIVER BASIN--Continued				
Holmes Run	Cameron Run	Lat 38°51'57", long 77°12'45", Fairfax County, on left bank 100 ft (30 m) downstream from U.S. Highway 50 at Merrifield.	2.70	1960-70, 1972-73	9-24-74	*0.30
Holmes Run	Cameron Run	Lat 38°50'47", long 77°10'28", Fairfax County, on left bank 150 ft (46 m) downstream from Sleepy Hollow Road, 0.5 mi (0.8 km) upstream from Lake Barcroft, and 1.6 mi (2.6 km) northeast of Annandale.	7.10	1960-73	9-24-74	*.98
Tripps Run	Holmes Run	Lat 38°52'46", long 77°08'14", Falls Church City, on right bank 200 ft (61 m) upstream from South Washington Street.	1.78	1960-73	9-24-74	*.28
Tripps Run	Holmes Run	Lat 38°51'37", long 77°09'57", Fairfax County, at Sleepy Hollow Road, 0.7 mi (1.1 km) upstream from Lake Barcroft, and 1.0 mi (1.6 km) southwest of Falls Church.	4.55	1960-73	9-24-74	*.61
Backlick Run	Cameron Run	Lat 38°48'05", long 77°11'14", Fairfax County, on right bank 10 ft (3 m) downstream from Leesville Blvd., at Springfield.	2.02	1960-73	9-24-74	*.19
Backlick Run	Cameron Run	Lat 38°48'11", long 77°07'41", Alexandria City, 0.9 mi (1.4 km) upstream from confluence with Holmes Run.	13.4	1960-73	9-23-74	*2.5
Penn Daw outfall	Hunting Creek	Lat 38°47'19", long 77°03'54", Fairfax County, at Huntington Ave., 0.5 mi (0.8 km) southwest of Alexandria.	.82	1960-73	9-23-74	*.15
Accotink Creek	Potomac River	Lat 38°51'39", long 77°16'17", Fairfax County, at bridge at Pickett Street, at Fairfax.	6.80	1961-73	9-19-74	*1.0
Long Branch	Accotink Creek	Lat 38°52'23", long 77°14'34", Fairfax County, on left bank at Lee Highway, 0.5 mi (0.8 km) upstream from Arlington Blvd., 0.5 mi (0.8 km) southeast of Vienna.	1.18	1963-73	9-25-74	*.12
Long Branch	Accotink Creek	Lat 38°48'39", long 77°14'07", Fairfax County, at bridge on State Highway 620, 2.5 mi (4.0 km) southwest of Annandale.	3.71	1959-73	9-25-73	*1.3
Rabbit Branch	Pohick Creek	Lat 38°48'06", long 77°17'19", Fairfax County, on left bank 5 ft (2 m) upstream from highway bridge, 0.35 mi (0.56 km) upstream from Southern Railway, 1.1 mi (1.8 km) northwest of Burke.	3.81	1960-62, 1964-73	9-17-74	*.96
Pohick Creek	Potomac River	Lat 38°45'26", long 77°13'37", Fairfax County, at bridge on Hooes Road, 2.9 mi (4.7 km) southwest of Springfield.	15.0	1960, 1962-73	9-17-74	*3.5
Middle Run	Pohick Creek	Lat 38°45'01", long 77°14'03", Fairfax County, at bridge on Gambrill Road, 3.2 mi (5.1 km) north of Lorton.	3.56	1960, 1962-73	9-17-74	*.25
South Run	Pohick Creek	Lat 38°44'11", long 77°15'10", Fairfax County, at bridge at Hooes Road, 2.7 mi (4.3 km) northwest of Lorton.	6.54	1960, 1962-73	9-17-74	*.80

See footnotes at end of table, p. 236.

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		POTOMAC RIVER BASIN--Continued				
Pohick Creek	Potomac River	Lat 38°42'14", long 77°12'52", Fairfax County, at bridge on Lorton Road, 0.6 mi (1.0 km) east of Lorton.	31.0	1960, 1962-73	9-17-74	*4.4
Wolf Run	Occoquan River	Lat 38°44'09", long 77°21'52", Fairfax County, at bridge on Henderson Road, 1.7 mi (2.7 km) upstream from mouth, 3.3 mi (5.3 km) southeast of Clifton.	5.39	1973	10-17-73 11-13-73	*1.21 *1.58
Sandy Run	Occoquan River	Lat 38°44'53", long 77°19'23", Fairfax County, at bridge on Henderson Road, 3.5 mi (5.6 km) upstream from mouth, and 3.7 mi (6.0 km) south of Fairfax Station.	2.35	1964-73	9-17-74	*.31
Hooes Run	Occoquan River	Lat 38°40'50", long 77°17'15", Prince William County, at culvert on State Highway 641, 100 ft (30 m) upstream from Occoquan Reservoir, 0.7 mi (1.1 km) from Agnewville.	4.18	1973	10-17-73 11-13-73	*.09 *.73
Giles Run	Massey Creek	Lat 38°40'48", long 77°13'36", Fairfax County, at upstream side of culvert on U.S. Highway 1, 1.5 mi (2.4 km) northeast of Woodbridge.	4.54	1964-73	9-17-74	*1.4
Potomac Creek a/	Potomac River	Lat 38°22'34", long 77°27'05", Stafford County, at bridge on U.S. Highway 1, 4.0 mi (6.4 km) southwest of Brooke.	36.0	1971-73	10- 9-73 11- 6-73 12-10-73 1- 7-74 2- 4-74 3-18-74 4-29-74 6-10-74 7-22-74 8-26-74 9-30-74	*1.97 *2.07 8.76 39.6 40.0 37.4 *19.4 *13.9 *9.51 *9.96 15.6
		YORK RIVER BASIN				
Contrary Creek a/	North Anna River	Lat 38°03'24", long 77°52'48", Louisa County, at bridge on U.S. Highway 522, 4.0 mi (6.4 km) north of Mineral.			6-25-74 7-23-74 7-30-74 8- 7-74 8-14-74 9-11-74	*.46 *.60 12.8 2.59 *1.53 3.92
Part 2A		JAMES RIVER BASIN				
Mechums River	South Fork Rivanna River	Lat 38°07'46", long 78°32'59", Albemarle County, 20 ft (6 m) upstream from bridge on State Highway 601, and 2 mi (3 km) southeast of Free Union.	99.1	1973	10-15-73	39.0
Moormans River	South Fork Rivanna River	Lat 38°08'28", long 78°33'20", Albemarle County, at bridge on State Highway 601, and 1.2 mi (1.9 km) southeast of Free Union.	74.5	1973	10-15-73	17.0
Buck Mountain Creek	South Fork Rivanna River	Lat 38°09'15", long 78°32'20", Albemarle County, 40 ft (12 m) downstream from bridge on State Highway 665, and 1.5 mi (2.4 km) east of Free Union.	37.0	1973	10-15-73	12.1

See footnotes at end of table, p. 236.

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		JAMES RIVER BASIN--Continued				
Naked Creek	South Fork Rivanna River Reservoir	Lat 38°06'47", long 78°29'29", Albemarle County, 40 ft (12 m) downstream from private bridge at end of first secondary road south of State Highway 844, west of State Highway 743, and 3.2 mi (5.1 km) north of Charlottesville post office.	3.18	1973	10-15-73	1.52
Ivy Creek	South Fork Rivanna River Reservoir	Lat 38°04'29", long 78°31'54", Albemarle County, 20 ft (6 m) downstream from State Highway 601, and 2 mi (3 km) northwest of Charlottesville city limits.	21.9	1973	10-15-73	12.6
South Fork Rivanna River	Rivanna River	Lat 38°06'02", long 78°27'39", Albemarle County, 200 ft (60 m) downstream from northbound bridge on U.S. Highway 29, and 3 mi (5 km) north of Charlottesville post office.	260	1941, 1943, 1951, 1953, 1973	10-15-73	106
Upper Appomattox Canal a/	Appomattox River	Lat 37°13'18", long 77°30'12", Dinwiddie County, 300 ft (91 m) below VEPCO Dam, 1.5 mi (2.4 km) west of Matoaca, 1.7 mi (2.7 km) upstream from State Highway 600, and 5.2 mi (8.4 km) west of Petersburg. (See sta 02041650).		1971-73	11-13-73 12- 3-73 2- 4-74 4-29-74 7-22-74	5.56 5.60 7.67 10.9 20.9
		GREAT DISMAL SWAMP BASIN				
Cypress Swamp a/	Great Dismal Swamp	Lat 36°37'30", long 76°36'10", Nansemond County, at bridge on State Highway 32, 0.5 mi (0.8 km) downstream from Dragon Swamp, 0.8 mi (1.3 km) northwest of Cypress Chapel, and 6.5 mi (10.5 km) south of Suffolk.	b23	1953-73	11-14-73 12- 4-73 1- 9-74 2- 5-74 3-12-74 4-30-74 6-11-74 7-23-74 8-27-74	0 0 67.7 41.5 43.6 0 0 0 0
		ROANOKE RIVER BASIN				
Back Creek	Roanoke River	Lat 37°13'40", long 79°59'07", Roanoke County, 30 ft (9 m) downstream from bridge on State Highway 660, 2 mi (3 km) southeast of Dundee.	56.8	1973	10-15-73	18.7
Falling Creek	Smith Mountain Lake	Lat 37°15'21", long 79°48'31", Bedford County, 300 ft (90 m) downstream from bridge on State Highway 619, 1.4 mi (2.3 km) southwest of Stewartsville.	10.0	1973	10-15-73	2.33
Beaverdam Creek	Smith Mountain Lake	Lat 37°13'30", long 79°45'02", Bedford County, 50 ft (15 m) upstream from bridge just off State Highway 757, 800 ft (240 m) upstream from Kates Creek, and 2 mi (3 km) west of Goodview.	26.9	1973	10-15-73	10.9
Kates Creek	Beaverdam Creek	Lat 37°13'29", long 79°44'51", Bedford County, 100 ft (30 m) downstream from bridge on State Highway 757, and 1.5 mi (2.4 km) west of Goodview.	4.61	1973	10-15-73	2.79
Blackwater River	Smith Mountain Lake	Lat 37°03'22", long 79°45'35", Franklin County, at bridge on State Highway 834, 2 mi (3 km) south of Crossroads.	179	1973	10-15-73	100

See footnotes at end of table, p. 236.

Discharge measurements made at miscellaneous sites--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		ROANOKE RIVER BASIN--Continued				
Gills Creek	Blackwater River	Lat 37°06'03", long 79°44'00", Franklin County, at bridge on State Highway 834, 6 mi (10 km) east of Burnt Chimney.	31.9	1973	10-15-73	16.6
Part 3A		KANAWHA RIVER BASIN				
Pine Run	New River	Lat 36°56'17", long 80°47'35", Pulaski County, at bridge on unimproved road, 1.5 mi (2.4 km) northeast of Barren Springs Station, 0.3 mi (0.5 km) upstream from mouth.	14.8	-	7-17-73	12
					8-23-73	9.3
					10-25-73	6.0
Little Reed Island Creek	Big Reed Island Creek	Lat 36°55'40", long 80°44'55", Pulaski County, at bridge on State Highway 752, 0.4 mi (0.6 km) upstream from mouth, 1.2 mi (1.9 km) southwest of Allisonia.	83.5	-	7-17-73	157
					8-23-73	71
					10-25-73	58
Big Macks Creek	New River	Lat 36°59'20", long 80°41'44", Pulaski County, at bridge on State Highway 655, 0.6 mi (1.0 km) upstream from mouth, and 0.5 mi (0.8 km) northwest of Mack Creek Village.	18.7	-	7-17-73	4.3
					8-23-73	3.4
					10-25-73	1.8
Peak Creek	New River	Lat 37°02'31", long 80°44'30", Pulaski County, at bridge on State Highway 99, 7.3 mi (11.7 km) upstream from mouth, and 1.2 mi (1.9 km) northwest of McAdam.	85.1	-	7-17-73	35
					8-23-73	28
					10-25-73	17
Goose Creek	Peak Creek	Lat 37°03'00", long 80°42'44", Pulaski County, at bridge on unimproved road, 0.2 mi (0.3 km) upstream from mouth, and 1.5 mi (2.4 km) north of McAdam.	3.58	-	7-17-73	2.5
					8-23-73	1.4
					10-25-73	.62
Unnamed stream	New River	Lat 37°05'20", long 80°38'06", Pulaski County, at State Highway 611, 1.0 mi (1.6 km) west of Mountain View.	3.69	-	7-17-73	2.4
					8-23-73	.79
					10-25-73	.60
		BIG SANDY RIVER BASIN				
Georges Fork	Pound River	Lat 37°10'46", long 82°28'58", Dickenson County, at bridge on State Highway 621, 0.1 mi (0.2 km) upstream from mouth, and 0.5 mi (0.8 km) north of Freeling.	7.98	-	7-17-73	4.0
					8- 9-73	4.0
					10-24-73	2.2
Bearpen Branch	Pound River	Lat 37°11'05", long 82°28'05", Dickenson County, at bridge on State Highway 631, 50 ft (15 m) upstream from mouth, and 0.4 mi (0.6 km) west of Isom.	3.41	-	7-17-73	.72
					8- 9-73	.85
					10-24-73	.31
Cane Creek	Pound River	Lat 37°13'10", long 82°27'02", Dickenson County, at State Highway 611, 2.4 mi (3.9 km) upstream from mouth, and 1.3 mi (2.1 km) southwest of Blowing Rock.	2.77	-	7-17-73	.56
					8- 8-73	.82
					10-24-73	.29
Holly Creek	Cranes Nest River	Lat 37°09'15", long 82°26'44", Dickenson County, at end of unimproved road, off State Highway 607 near northeast town limits of Clintwood, and 1.8 mi (2.9 km) upstream from mouth.	1.93	-	7-17-73	.57
					8- 8-73	1.0
					10-23-73	.55

* Base flow.
a Furnished by Virginia State Water Control Board.
b Approximately.

PART 2. WATER-QUALITY RECORDS

NORTH ATLANTIC SLOPE BASINS

POTOMAC RIVER BASIN

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.

LOCATION.--Lat 38°54'50", long 78°12'40", Warren County, at gaging station on left bank 0.7 mi (1.1 km) downstream from bridge on State Highway 619, 1.0 mi (1.6 km) west of Front Royal, and 3.5 mi (5.6 km) upstream from confluence with North Fork.

DRAINAGE AREA.--1,642 mi² (4,253 km²).

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, October 1952 to September 1956, February 1967 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	480	6.5	20	36	11	9.8	3.2	156	20
15...	512	4.1	10	37	12	12	3.6	160	26
NOV.									
01...	1670	5.1	20	36	11	11	3.3	140	24
15...	790	1.6	20	32	9.7	9.3	2.4	128	19
DEC.									
01...	700	1.9	30	39	12	9.2	2.9	159	20
15...	1600	6.6	20	25	7.0	6.7	2.5	94	17
JAN.									
02...	3960	7.1	20	24	6.3	3.7	1.7	91	14
15...	3240	6.4	20	25	6.8	4.4	1.7	92	17
FEB.									
01...	2770	6.8	0	30	7.4	4.5	1.7	110	15
15...	1420	3.4	10	36	9.6	8.9	1.8	140	16
MAR.									
01...	1400	.7	20	33	9.3	6.8	2.0	140	16
17...	1480	1.0	20	34	10	6.8	2.0	140	16
APR.									
01...	2130	2.5	10	27	7.5	6.3	1.7	99	16
15...	1700	4.9	0	26	6.8	6.0	1.7	99	16
MAY									
01...	910	1.4	0	33	11	8.6	2.3	140	20
15...	4820	6.6	40	18	4.9	2.8	2.0	70	11
JUNE									
15...	960	2.9	10	34	8.5	6.9	2.1	127	14
24...	870	2.6	--	33	9.9	7.6	2.4	137	17
JULY									
01...	780	3.7	10	40	13	10	2.8	162	20
14...	520	7.6	90	43	14	11	2.9	173	20
AUG.									
01...	540	2.1	90	41	13	15	3.5	170	28
15...	464	6.9	50	42	14	15	3.7	161	29
SEP.									
01...	670	5.7	--	42	12	12	3.2	170	23
15...	690	4.5	--	40	14	15	3.6	172	27

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

PERIOD OF RECORD.--Continued
Water temperatures: October 1952 to September 1956, April 1968 to September 1974.
Sediment records: April 1953 to September 1956.

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 450 micromhos Aug. 26, Sept. 5, 7, 8; minimum daily, 108 micromhos Dec. 27.
Water temperatures: Maximum, 29.0°C Oct. 1; minimum, 1.0°C Dec. 19, 22.

Period of record:
Specific conductance (1952-56, 1967-74): Maximum daily, 465 micromhos Oct. 16-18, 1968; minimum daily, 81 micromhos Aug. 3, 1969.
Water temperatures: Maximum, 32.0°C July 5, 1955; minimum, freezing point on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	11	.1	1.3	.22	188	140	7	310	10
15...	12	.2	1.3	.32	204	140	10	355	15
NOV.									
01...	12	.2	3.6	.32	185	130	20	320	27
15...	11	.1	1.8	.14	155	120	15	270	23
DEC.									
01...	15	.2	.50	.21	194	150	17	340	25
15...	8.4	.1	1.2	.13	138	92	14	230	25
JAN.									
02...	5.2	.1	1.3	.04	120	86	12	199	25
15...	5.8	.1	1.4	.08	119	90	15	195	10
FEB.									
01...	7.6	.1	1.6	.01	137	110	16	220	10
15...	13	.2	1.6	.08	168	130	15	300	15
MAR.									
01...	8.6	.1	1.2	.10	158	120	6	260	15
17...	8.7	.2	1.3	.15	161	130	12	275	20
APR.									
01...	7.8	.1	1.2	.11	129	98	17	220	20
15...	6.5	.1	1.4	.15	132	93	12	215	8
MAY									
01...	10	.1	1.1	.14	170	130	14	310	8
15...	3.9	.1	.95	.09	92	65	8	149	15
JUNE									
15...	7.8	.0	.69	.09	145	120	16	255	5
24...	10	.1	.50	.08	160	120	11	276	7
JULY									
01...	12	.1	1.3	.22	204	150	21	330	5
14...	15	.2	.67	.27	210	170	23	342	5
AUG.									
01...	15	.2	.64	.29	204	160	16	369	7
15...	15	.0	1.8	.40	276	160	30	343	10
SEP.									
01...	14	.0	1.3	.26	222	150	15	371	10
15...	16	.0	1.5	.36	228	160	16	381	10

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	320	340	---	220	260	220	310	265	380	390	400
2	---	---	---	199	225	265	225	295	---	375	420	---
3	---	320	340	218	240	260	227	285	210	350	445	410
4	---	290	350	225	260	260	233	290	164	320	410	430
5	400	235	339	228	---	260	220	290	130	330	418	450
6	390	230	330	246	260	270	205	295	132	330	449	440
7	380	230	350	250	270	270	200	305	146	340	435	450
8	380	235	360	261	---	280	223	300	159	340	440	450
9	355	239	358	260	---	280	177	---	190	350	---	440
10	360	249	290	262	---	275	170	295	210	340	421	420
11	370	250	235	260	---	285	180	310	217	350	400	400
12	360	260	199	260	285	290	240	310	222	350	---	410
13	350	270	230	242	280	290	204	250	240	340	---	440
14	350	270	235	210	290	---	190	210	250	340	---	440
15	355	270	230	195	300	---	215	149	262	---	410	420
16	349	260	240	200	299	---	225	116	270	---	400	---
17	350	270	235	205	300	275	230	130	280	340	430	---
18	355	280	245	220	290	290	---	146	290	350	410	---
19	370	300	250	235	310	285	240	155	---	370	390	---
20	380	300	260	230	300	270	245	170	300	367	400	---
21	370	300	210	245	300	265	245	180	309	367	430	300
22	380	295	185	230	299	260	260	195	340	370	410	290
23	380	299	154	208	305	248	260	207	375	380	410	290
24	390	315	146	199	305	245	270	210	360	390	420	280
25	380	330	163	188	310	235	270	215	380	394	410	320
26	390	330	---	193	310	---	280	240	385	394	450	300
27	390	325	108	205	305	---	280	238	350	399	440	310
28	390	330	136	240	295	---	280	249	295	385	420	340
29	290	330	---	215	---	205	285	252	380	380	420	320
30	280	330	149	205	---	214	290	255	400	410	410	---
31	310	---	167	210	---	210	---	265	---	420	400	---
MONTH	361	285	244	225	285	262	234	237	268	364	418	---

01631000 SOUTH FORK SHENANDOAH RIVER AT FRONT ROYAL, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.0	14.0	7.0	---	9.0	7.0	8.0	21.0	22.0	23.0	24.0	21.0
2	---	---	---	6.0	8.0	8.0	10.0	20.0	---	24.0	25.0	---
3	---	14.0	7.0	7.0	8.0	8.0	11.0	16.0	17.0	25.0	25.0	24.0
4	---	14.0	8.0	7.0	7.0	12.0	15.0	16.0	18.0	26.0	25.0	21.0
5	24.0	14.0	9.5	6.0	---	13.0	15.0	16.0	18.0	26.0	24.0	21.0
6	21.0	10.0	10.0	7.0	5.0	11.0	16.0	15.0	18.0	23.0	23.0	20.0
7	21.0	10.0	9.0	6.0	5.0	10.0	15.0	15.0	19.0	25.0	23.0	28.0
8	21.0	9.0	7.0	4.0	---	12.0	13.0	15.0	20.0	25.0	23.0	21.0
9	22.0	10.0	8.0	5.5	---	13.0	10.0	---	21.0	26.0	---	22.0
10	26.5	9.0	7.0	4.0	---	14.0	11.0	17.0	24.0	26.0	23.0	21.0
11	22.0	9.0	6.0	6.5	---	12.0	---	18.0	22.0	26.0	23.0	23.0
12	21.0	8.0	5.0	4.5	4.0	9.0	---	20.0	23.0	23.0	---	24.0
13	21.0	6.0	5.0	5.0	5.0	9.0	---	15.0	21.0	23.0	---	23.0
14	22.0	---	6.0	6.0	5.0	---	---	16.0	23.0	23.0	---	25.0
15	20.0	---	6.0	5.0	6.0	---	---	17.0	23.0	---	23.0	25.0
16	20.0	---	5.0	8.0	7.0	---	---	18.0	22.0	---	24.5	---
17	18.0	9.0	1.5	7.0	6.5	9.0	---	20.0	20.0	23.0	25.0	---
18	16.0	7.0	1.5	8.0	5.0	8.0	---	22.0	21.0	25.0	23.0	---
19	16.0	7.0	1.0	8.0	6.0	10.0	---	20.0	---	26.0	21.0	---
20	16.0	8.5	1.5	8.0	6.0	10.0	---	20.0	23.0	24.0	21.0	---
21	17.0	10.0	---	8.0	7.0	10.0	---	20.0	24.0	23.0	23.0	22.0
22	16.0	9.5	1.0	9.0	10.0	10.0	---	21.0	23.0	22.0	24.0	22.5
23	15.0	9.0	3.0	9.0	7.0	10.0	---	23.0	24.0	23.0	24.0	17.0
24	15.0	10.0	3.0	9.0	7.0	10.0	---	22.0	20.0	24.0	24.0	17.0
25	15.0	10.0	4.0	8.0	6.0	8.0	---	21.0	21.0	22.0	25.0	15.0
26	16.0	12.0	---	9.0	6.0	---	---	20.0	21.0	23.0	25.0	15.0
27	16.0	13.0	7.0	9.0	3.0	---	---	19.0	21.0	24.0	24.5	15.0
28	16.0	14.0	7.0	10.0	6.0	---	17.0	18.0	21.0	24.0	25.0	14.0
29	17.0	10.0	---	10.0	---	10.0	18.0	20.0	18.0	25.0	24.0	20.0
30	15.0	7.0	7.0	9.0	---	10.0	20.0	21.0	20.0	25.0	24.0	---
31	14.0	---	7.0	9.0	---	9.0	---	21.0	---	25.0	25.0	---
MONTH	19.0	10.0	5.5	7.5	6.5	10.0	---	19.0	21.0	24.0	24.0	---

01634000 NORTH FORK SHENANDOAH RIVER NEAR STRASBURG, VA.

LOCATION.--Lat 38°58'36", long 78°20'11", Warren County, at gaging station on right bank at downstream side of bridge on State Highway 55, 1.5 mi (2.4 km) southeast of Strasburg, 2.2 mi (3.5 km) upstream from Cedar Creek, and 10 mi (16 km) upstream from confluence with South Fork.

DRAINAGE AREA.--768 mi² (1,989 km²).

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1948 to September 1949, October 1951 to September 1952, November 1969 to September 1974.
Water temperatures: October 1948 to September 1949.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV.										
07...	459	5.0	20	32	8.5	4.0	2.0	122	14	6.4
DEC.										
11...	876	2.5	20	38	11	6.4	2.4	157	17	6.8
JAN.										
22...	2470	5.2	20	42	10	4.2	1.9	150	16	8.4
MAR.										
05...	530	.9	40	39	11	4.8	1.5	160	16	7.8
APR.										
22...	436	.8	0	38	11	5.6	1.5	150	16	8.2
MAY										
29...	307	3.7	0	43	12	5.8	1.9	172	13	8.2
JULY										
10...	242	2.4	10	33	15	4.5	2.0	136	14	9.3
AUG.										
29...	166	6.4	50	42	15	8.5	5.2	191	16	13

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
NOV.									
07...	.1	1.2	.05	138	120	15	240	6.5	20
DEC.									
11...	.1	1.1	.07	171	140	12	299	4.5	23
JAN.									
22...	.1	1.7	.05	175	150	23	310	6.5	22
MAR.									
05...	.2	1.4	.01	169	140	12	320	12.0	20
APR.									
22...	.1	.54	.01	165	140	17	305	16.0	15
MAY									
29...	1.1	1.0	.05	204	160	16	321	19.0	7
JULY									
10...	.6	.26	.00	174	140	33	250	27.5	7
AUG.									
29...	.2	.27	.01	210	170	10	354	23.5	7

01644291 STAVE RUN NEAR RESTON, VA.

LOCATION.--Lat 38°56'56", long 77°22'16", Fairfax County, at gaging station on left bank 0.31 mi (0.50 km) upstream from mouth and 1.4 mi (2.3 km) southwest of Sunset Hills in Reston.

DRAINAGE AREA.--0.08 mi² (0.21 km²).

PERIOD OF RECORD.--Chemical analyses: October 1971 to September 1974.
Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:
Sediment concentrations: Maximum daily, 935 mg/l Oct. 2; minimum daily, no flow on many days.
Sediment discharge: Maximum daily, 6.1 tons (5.5 tonnes) Oct. 2; minimum daily, zero ton (zero tonne) on many days.

Period of record:
Sediment concentrations: Maximum daily, 6,240 mg/l June 21, 1972; minimum daily, no flow at times each year.
Sediment discharge: Maximum daily, 459 tons (416 tonnes) June 21, 1972; minimum daily, zero ton (zero tonne) at times each year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.										
03...	.01	4.2	20	12	1.5	3.2	4.9	16	21	6.0
NOV.										
01...	.00	5.7	130	21	1.8	2.9	7.3	27	36	7.6
DEC.										
03...	.03	10	120	28	3.2	7.6	8.1	66	32	13
JAN.										
04...	.06	5.1	50	7.4	1.2	5.1	2.6	12	14	8.2
31...	.01	9.4	100	9.8	1.8	7.4	2.6	20	19	10
MAR.										
04...	.00	9.0	120	19	1.9	19	3.5	16	19	46
28...	.01	12	220	6.6	1.4	7.1	4.0	19	11	11
APR.										
30...	.00	6.7	160	14	1.5	4.8	5.0	38	14	6.6
JUNE										
03...	.01	5.5	260	7.6	1.6	3.6	3.8	26	11	5.1
27...	.01	4.9	40	16	3.0	2.7	8.8	3	26	12
JULY										
02...	.03	5.1	50	27	4.7	8.0	3.8	54	29	13
31...	.27	6.1	10	30	5.9	9.4	3.1	66	35	19
AUG.										
28...	.01	3.6	130	32	6.5	14	3.5	72	50	22

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
03...	.3	1.1	.08	83	36	23	122	20.0	35
NOV.									
01...	.5	.90	.05	116	60	38	175	12.0	30
DEC.									
03...	.6	.60	.00	137	83	29	225	4.0	25
JAN.									
04...	.3	.50	.04	65	24	14	86	.5	30
31...	.2	.27	.07	79	32	16	114	9.0	20
MAR.									
04...	.4	.32	.03	157	56	42	240	13.5	32
28...	.2	.05	.04	73	22	7	98	12.5	30
APR.									
30...	.4	.10	.04	84	41	10	116	24.0	30
JUNE									
03...	.3	.25	.03	70	26	4	82	17.5	35
27...	.8	.90	1.0	124	52	50	187	19.5	20
JULY									
02...	.6	.17	.00	138	87	42	163	29.0	20
31...	.8	.25	.00	150	99	45	248	19.5	3
AUG.									
28...	.8	.14	.00	242	110	48	303	25.5	5

01644291 STAVE RUN NEAR RESTON, VA.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
OCT.							
02...	1310	5.6	1720	26	66	82	94
02...	1503	5.4	3640	53	50	60	72
02...	1507	5.1	1750	24	64	81	91
APR.							
04...	0800	20	3660	198	--	--	--
04...	0808	11	1080	32	--	--	--
04...	0817	6.1	651	11	--	--	--
04...	0825	6.7	984	18	--	--	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
OCT.							
02...	98	99	100	--	--	--	--
02...	79	82	86	93	96	100	--
02...	95	97	98	100	--	--	--
APR.							
04...	--	50	66	77	87	96	100
04...	--	67	82	92	98	100	--
04...	--	71	84	93	100	--	--
04...	--	73	83	91	100	--	--

01644291 STAVE RUN NEAR RESTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.22	62	.13	.02	10	0	.02	7	0
2	1.3	935	5.1	0	0	0	.02	5	0
3	.01	130	0	0	0	0	.01	3	0
4	.01	10	0	0	0	0	0	0	0
5	.01	5	0	.21	32	.05	.78	98	.66
6	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0
8	0	0	0	.07	28	.09	.12	90	.03
9	.01	5	0	.17	29	.07	1.6	175	.76
10	.01	3	0	0	0	0	0	0	0
11	.01	3	0	0	0	0	0	0	0
12	.01	3	0	0	0	0	0	0	0
13	.01	4	0	0	0	0	.11	34	.01
14	.01	3	0	.03	10	0	.01	5	0
15	0	0	0	0	0	0	0	0	0
16	.02	10	0	0	0	0	.01	5	0
17	.01	5	0	0	0	0	.01	5	0
18	.01	4	0	0	0	0	.01	5	0
19	.01	4	0	0	0	0	.02	7	0
20	.01	3	0	0	0	0	.95	38	.23
21	.01	2	0	0	0	0	2.2	54	.62
22	.01	2	0	0	0	0	.16	10	0
23	.01	0	0	0	0	0	.15	50	.02
24	0	0	0	0	0	0	.04	20	0
25	0	0	0	0	0	0	.08	20	0
26	0	0	0	.01	5	0	1.7	210	.96
27	0	0	0	.06	15	0	.17	40	.02
28	0	0	0	.04	20	0	.01	15	0
29	.44	354	2.4	0	0	0	.01	10	0
30	.01	20	0	.01	5	0	.04	15	0
31	.04	20	0	--	--	--	.29	29	.04
TOTAL	2.74	--	8.63	.62	--	.21	8.52	--	3.35

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.06	10	0	.01	2	0	.01	3	0
2	0	0	0	.07	15	0	.16	22	.04
3	.46	46	.10	.02	5	0	.01	5	0
4	.37	20	.02	.01	2	0	.01	5	0
5	.01	5	0	.01	0	0	.01	4	0
6	.01	4	0	.07	15	0	.11	20	.01
7	.01	3	0	.04	10	0	.07	15	0
8	0	0	0	.01	7	0	.01	7	0
9	0	40	0	.04	10	0	.01	5	0
10	.38	50	.05	.02	8	0	.01	3	0
11	.40	40	.04	.03	10	0	.07	10	0
12	.48	7	.01	.05	15	0	.06	5	0
13	.01	10	0	.08	20	0	0	0	0
14	.02	5	0	.05	10	0	0	0	0
15	.01	4	0	.01	5	0	0	0	0
16	.01	3	0	.03	15	0	.10	37	.01
17	.01	2	0	.03	10	0	.01	5	0
18	0	0	0	.01	5	0	.01	3	0
19	.01	3	0	.06	15	0	0	0	0
20	0	0	0	.01	5	0	0	0	0
21	.97	110	.29	.01	5	0	.98	48	.45
22	.01	5	0	.34	100	.77	.03	15	0
23	.01	3	0	.01	5	0	.01	5	0
24	.25	31	.02	.03	8	0	.01	3	0
25	.15	20	.01	.03	10	0	.01	3	0
26	.05	10	0	.01	5	0	.01	2	0
27	.10	15	0	.01	5	0	.01	2	0
28	.03	5	0	.01	4	0	.01	0	0
29	.01	4	0	--	--	--	.30	80	.06
30	.01	3	0	--	--	--	1.9	270	1.4
31	.01	3	0	--	--	--	.15	15	.01
TOTAL	3.85	--	.54	1.11	--	.77	4.08	--	1.98

01644291 STAVE RUN NEAR RESTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.01	10	0	.01	10	0	.23	20	.01
2	.01	5	0	.07	25	0	1.1	106	.31
3	.01	5	0	.20	40	.02	.01	10	0
4	.47	107	.91	.01	5	0	.01	8	0
5	.41	49	.11	.14	21	.01	.01	8	0
6	.01	10	0	.02	10	0	.02	10	0
7	.01	5	0	.01	5	0	.01	25	0
8	.64	125	.22	.01	5	0	.02	15	0
9	.24	60	.04	.74	70	.14	.02	10	0
10	.01	10	0	.03	20	0	.01	10	0
11	.01	5	0	.01	10	0	.02	5	0
12	.01	15	0	1.5	370	1.5	.01	5	0
13	.40	46	.05	.03	20	0	.01	5	0
14	.10	20	.01	.01	10	0	.21	56	.03
15	.05	15	0	.01	8	0	.14	15	.01
16	.03	10	0	.01	8	0	1.5	270	1.1
17	.03	8	0	.01	7	0	.98	80	.21
18	.03	7	0	.01	7	0	.01	50	0
19	.03	5	0	.02	6	0	.01	68	0
20	.03	5	0	.01	5	0	.02	55	0
21	.02	4	0	.01	6	0	.06	50	.01
22	.03	5	0	.04	15	0	.13	51	.02
23	.24	60	.04	.35	35	.03	.27	38	.06
24	.01	15	0	.12	10	0	.01	15	0
25	.01	10	0	.10	5	0	.01	5	0
26	.01	8	0	.07	0	0	.21	14	.05
27	.01	8	0	.07	0	0	.01	10	0
28	.01	5	0	.06	0	0	.13	24	.02
29	.01	5	0	.05	20	0	.01	8	0
30	.02	15	0	.04	15	0	.01	7	0
31	--	--	--	.02	10	0	--	--	--
TOTAL	2.91	--	1.38	3.79	--	1.70	5.20	--	1.83

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.01	7	0	.25	8	.01	.01	5	0
2	.01	6	0	.33	20	.02	.04	7	0
3	.01	5	0	.26	10	.01	.90	53	.68
4	.01	5	0	.25	40	.03	.05	10	0
5	.08	10	0	.24	10	.01	.01	5	0
6	.01	7	0	.22	8	0	.99	57	.15
7	.01	5	0	.37	20	.02	.67	33	.06
8	.01	7	0	.27	15	.01	.01	8	0
9	.21	10	.01	.31	15	.01	.01	5	0
10	.46	43	.34	.39	10	.01	.01	3	0
11	.25	30	.02	.27	8	.01	.08	10	0
12	.40	18	.02	.27	5	0	.01	5	0
13	.25	10	.01	.27	5	0	.01	4	0
14	.25	10	.01	.27	3	0	.15	37	.01
15	.25	10	.01	.27	5	0	0	0	0
16	.26	15	.01	.53	12	.03	0	0	0
17	.25	10	.01	.37	7	.01	.01	0	0
18	.25	10	.01	.27	3	0	.01	0	0
19	.26	8	.01	.58	28	.27	.03	15	0
20	.27	9	.01	.28	7	.01	.01	5	0
21	.27	10	.01	.27	5	0	.13	25	.01
22	.27	10	.01	.36	15	.01	.01	5	0
23	.33	25	.02	.31	10	.01	0	0	0
24	.29	15	.01	.29	8	.01	0	0	0
25	.27	10	.01	.19	7	0	0	0	0
26	.27	10	.01	.07	5	0	.01	0	0
27	.27	8	.01	.12	10	0	0	0	0
28	.27	7	.01	.14	10	0	1.1	85	.25
29	.88	54	.13	.03	5	0	.01	10	0
30	.27	12	.01	.34	20	.02	.01	5	0
31	.27	10	.01	.02	10	0	--	--	--
TOTAL	7.17	--	.71	8.41	--	.51	4.28	--	1.16

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 52.68

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 22.77

01644295 SMILAX BRANCH AT RESTON, VA.

LOCATION.--Lat 38°57'10", long 77°22'04", Fairfax County, at gaging station on right bank 100 ft (30 m) upstream from Dulles Airport Road, 0.4 mi (0.6 km) upstream from mouth, 1.0 mi (1.6 km) west of Sunset Hills in Reston, and 4.3 mi (6.9 km) east of Dulles International Airport.

DRAINAGE AREA.--0.32 mi² (0.83 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1969, October 1970 to September 1974.
Sediment records: October 1971 to September 1974.

EXTREMES.--1973-74:
Sediment concentrations: Maximum daily, 523 mg/l June 17; minimum daily, no flow Sept. 2.
Sediment discharge: Maximum daily, 55 tons (50 tonnes) June 17; minimum daily, zero ton (zero tonne) on many days.

Period of record:
Sediment concentration: Maximum daily, 1,080 mg/l June 21, 1972; minimum daily, no flow at times each year.
Sediment discharge: Maximum daily, 173 tons (157 tonnes) June 21, 1972; minimum daily, zero ton (zero tonne) at times each year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.										
03...	.95	14	170	15	3.8	6.9	3.9	32	26	12
NOV.										
02...	.24	12	80	14	3.8	5.2	6.0	19	30	14
DEC.										
03...	.02	16	220	9.4	2.2	5.4	2.2	38	7.3	7.0
JAN.										
04...	.80	9.6	70	3.8	1.4	3.3	1.6	8	11	5.6
31...	.27	12	170	4.6	1.6	3.8	1.4	14	12	5.0
FEB.										
28...	.18	12	180	4.0	1.6	4.0	1.0	16	6.2	5.8
MAR.										
28...	.16	13	100	4.3	1.7	3.6	1.1	20	6.4	4.6
APR.										
30...	.27	13	100	10	2.9	5.6	2.3	22	21	8.2
JUNE										
03...	.34	12	0	6.2	1.5	3.3	1.5	20	9.8	4.3
27...	.10	13	10	22	3.6	7.5	3.0	48	25	15
JULY										
29...	.02	12	10	21	5.3	8.6	5.0	63	26	16
AUG.										
28...	.00	14	930	27	6.8	12	4.2	60	50	18

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
03...	.7	.60	.02	114	53	27	170	22.0	25
NOV.									
02...	.9	.80	.02	111	50	35	160	19.0	15
DEC.									
03...	.3	.02	.00	68	32	2	98	4.5	25
JAN.									
04...	.1	.09	.01	50	16	9	59	5.0	45
31...	.1	.21	.00	48	18	6	54	9.0	25
FEB.									
28...	.1	.06	.00	46	16	4	56	5.5	30
MAR.									
28...	.1	.03	.00	49	18	1	63	6.5	30
APR.									
30...	.7	.45	.15	85	37	19	114	20.0	25
JUNE									
03...	.1	.07	.00	41	22	5	73	16.0	7
27...	.9	.38	.12	124	70	30	187	19.5	7
JULY									
29...	.7	.35	.01	158	74	23	212	22.0	5
AUG.									
28...	.7	.36	.05	192	95	46	292	24.5	8

01644295 SMILAX BRANCH AT RESTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.33	42	.04	.70	22	.04	.02	3	0
2	1.9	277	3.6	.50	15	.02	.02	3	0
3	.66	20	.04	.31	12	.01	.02	5	0
4	.66	15	.03	.13	10	0	.02	7	0
5	.70	15	.03	.70	40	.08	.91	85	.72
6	.46	12	.01	.26	28	.02	.08	16	0
7	.50	20	.03	.07	15	0	.04	10	0
8	.70	20	.04	.18	15	.01	.06	12	0
9	.75	25	.05	.43	58	.19	2.8	127	1.5
10	.70	18	.03	.09	16	0	.22	22	.01
11	.43	15	.02	.08	12	0	.12	20	.01
12	.08	15	0	.09	10	0	.09	15	0
13	.07	10	0	.10	10	0	.15	20	.01
14	.16	15	.01	.10	10	0	.13	18	.01
15	.31	15	.01	.13	8	0	.08	15	0
16	.34	18	.02	.20	19	.01	.08	12	0
17	.62	24	.04	.03	15	0	.09	10	0
18	.70	20	.04	.03	10	0	.10	10	0
19	.26	15	.01	.03	8	0	.09	10	0
20	.50	22	.03	.03	5	0	.85	43	.27
21	.53	18	.03	.03	4	0	5.6	429	12
22	.43	15	.02	.03	4	0	.62	29	.05
23	.66	20	.04	.05	6	0	.37	20	.02
24	.46	15	.02	.03	6	0	.24	15	.01
25	.31	15	.01	.05	5	0	.31	16	.01
26	.12	14	0	.03	5	0	3.7	98	1.5
27	.05	12	0	.05	9	0	1.7	35	.16
28	.06	10	0	.08	10	0	.53	15	.02
29	1.3	150	.53	.04	7	0	.34	12	.01
30	.43	23	.03	.02	5	0	.31	10	.01
31	.53	15	.02	--	--	--	.53	20	.03
TOTAL	15.71	--	4.78	4.60	--	.38	20.22	--	16.35

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.46	10	.01	.23	5	0	.19	10	.01
2	.26	6	0	.24	5	0	.34	36	.03
3	.66	30	.05	.23	10	.01	.21	16	.01
4	1.5	25	.10	.20	8	0	.25	15	.01
5	.41	10	.01	.18	6	0	.24	20	.01
6	.28	10	.01	.20	10	.01	.33	26	.02
7	.25	6	0	.27	12	.01	.25	15	.01
8	.21	7	0	.22	10	.01	.22	12	.01
9	.95	112	.29	.22	10	.01	.18	10	0
10	1.4	76	.29	.22	8	0	.17	10	0
11	1.6	40	.17	.22	5	0	.18	9	0
12	.49	18	.02	.27	7	.01	.29	29	.02
13	.31	15	.01	.41	15	.02	.17	16	.01
14	.29	20	.02	.39	15	.02	.16	10	0
15	.28	20	.02	.23	12	.01	.15	7	0
16	.27	15	.01	.23	12	.01	.24	12	.01
17	.23	12	.01	.25	14	.01	.20	10	.01
18	.33	15	.01	.21	10	.01	.22	10	.01
19	.26	15	.01	.26	15	.01	.18	10	0
20	.20	12	.01	.22	12	.01	.20	15	.01
21	2.0	160	1.5	.18	10	0	1.5	191	2.1
22	.68	30	.06	.74	127	.76	.60	20	.03
23	.39	15	.02	.32	20	.02	.28	14	.01
24	.58	25	.04	.23	15	.01	.24	10	.01
25	.88	20	.05	.22	15	.01	.20	13	.01
26	.46	15	.02	.18	10	0	.20	10	.01
27	.52	15	.02	.19	8	0	.18	7	0
28	.37	12	.01	.18	8	0	.23	10	.01
29	.31	10	.01	--	--	--	.47	42	.05
30	.27	10	.01	--	--	--	4.9	130	2.1
31	.28	8	.01	--	--	--	1.5	26	.11
TOTAL	17.38	--	2.80	7.14	--	.96	14.67	--	4.62

01644295 SMILAX BRANCH AT RESTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.65	18	.03	.22	20	.01	.44	68	.16
2	.55	15	.02	.23	26	.02	2.3	147	1.1
3	.53	14	.02	.49	40	.05	.36	27	.03
4	1.5	74	.30	.14	14	.01	.15	15	.01
5	1.6	60	.26	.28	26	.02	.10	11	0
6	.66	22	.04	.23	18	.01	.21	15	.01
7	.50	12	.02	.16	15	.01	.12	10	0
8	1.6	78	.34	.17	15	.01	.08	10	0
9	1.8	27	.13	1.3	51	.35	.07	7	0
10	.66	23	.04	.37	20	.02	.07	15	0
11	.58	20	.03	.18	16	.01	.14	17	.01
12	.61	18	.03	3.1	145	6.2	.20	20	.01
13	1.1	57	.17	1.2	22	.07	.29	20	.02
14	.77	25	.05	.53	19	.03	.46	62	.08
15	.62	16	.03	.59	14	.02	.28	25	.02
16	.33	15	.01	.24	9	.01	1.1	72	.30
17	.27	15	.01	.23	9	.01	4.8	523	55
18	.30	15	.01	.38	15	.02	.18	27	.01
19	.24	10	.01	.19	13	.01	.15	24	.01
20	.22	11	.01	.21	20	.01	.13	18	.01
21	.22	8	0	.23	15	.01	.22	30	.02
22	.42	51	.06	.18	10	0	.31	40	.08
23	.62	66	.11	.89	29	.09	.53	91	.33
24	.24	14	.01	.26	10	.01	.26	40	.06
25	.19	15	.01	.19	6	0	.22	18	.01
26	.18	12	.01	.17	6	0	.50	42	.06
27	.16	10	0	.10	5	0	.18	15	.01
28	.16	10	0	.24	12	.01	.29	25	.02
29	.17	15	.01	.29	15	.01	.29	18	.01
30	.21	20	.01	.25	15	.01	.26	15	.01
31	--	--	--	.26	20	.01	--	--	--
TOTAL	17.66	--	1.78	13.50	--	7.05	14.69	--	57.39

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.09	10	0	.02	12	0	.01	8	0
2	.22	18	.01	.04	19	0	0	0	0
3	.31	15	.01	.02	10	0	.88	173	2.0
4	.07	10	0	.56	87	2.1	.06	30	0
5	.07	10	0	.04	15	0	.05	16	0
6	.04	7	0	.02	10	0	1.1	65	.49
7	.04	10	0	.10	25	.01	.81	60	.13
8	.03	8	0	.02	20	0	.02	10	0
9	.05	10	0	.04	28	.02	.02	8	0
10	.24	37	.09	.18	40	.06	.02	9	0
11	.26	20	.01	.02	12	0	.07	7	0
12	.40	32	.03	.02	10	0	.04	5	0
13	.31	25	.02	.03	10	0	.02	3	0
14	.26	20	.01	.03	8	0	.20	18	.03
15	.24	15	.01	.02	7	0	.37	23	.02
16	.29	20	.02	.11	33	.08	.24	20	.01
17	.26	15	.01	.18	15	.01	.15	15	.01
18	.24	15	.01	.03	10	0	.03	10	0
19	.26	18	.01	.28	26	.12	.03	8	0
20	.31	20	.02	.04	10	0	.03	7	0
21	.31	15	.01	.02	8	0	.15	28	.03
22	.31	20	.02	.04	10	0	.03	12	0
23	.31	29	.02	.07	18	0	.20	15	.01
24	.04	13	0	.09	20	0	.05	15	0
25	.02	10	0	.08	20	0	.07	22	0
26	.22	17	.01	.04	20	0	.20	20	.01
27	.18	11	.01	.01	15	0	.17	12	.01
28	.02	10	0	.06	27	0	.95	143	1.7
29	.37	145	1.5	.03	15	0	.20	20	.01
30	.12	30	.01	.25	52	.29	.43	16	.02
31	.02	16	0	.02	16	0	--	--	--
TOTAL	5.91	--	1.84	2.51	--	2.69	6.60	--	4.48
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									140.59
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									105.12

01645784 SNAKEDEN BRANCH AT RESTON, VA.

LOCATION.--Lat 38°55'48", long 77°20'43", Fairfax County, at gaging station on right bank at upstream side of culvert on Soapstone Drive, 1.1 mi (1.8 km) upstream from Lake Elsa Dam, and 1.7 mi (2.7 km) south of Sunset Hills in Reston.

DRAINAGE AREA.--0.79 mi^2 (2.05 km^2).

PERIOD OF RECORD.--Chemical analyses: February 1973 to September 1974.
Sediment records: October 1973 to September 1974.

EXTREMES.--1973-74:
Sediment concentrations: Maximum daily, 672 mg/1 June 17; minimum daily, 3 mg/1 on many days.
Sediment discharge: Maximum daily, 245 tons (222 tonnes) June 17; minimum daily, zero ton (zero tonne) on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT.										
03...	.70	11	60	6.4	1.4	3.8	2.1	20	9.5	3.5
NOV.										
02...	.45	12	200	5.6	1.3	3.0	1.8	24	7.7	3.0
DEC.										
05...	20	4.0	20	13	1.6	2.4	6.1	24	.27	3.7
JAN.										
10...	8.9	3.9	40	8.6	1.2	4.2	3.3	13	20	3.1
31...	.70	11	160	3.6	1.0	2.8	.9	19	3.7	2.6
MAR.										
04...	.27	11	100	3.5	1.0	3.2	.8	18	2.5	3.6
28...	.12	11	130	3.0	1.0	2.8	.7	18	1.0	2.4
APR.										
30...	.57	10	70	3.4	1.0	2.8	.9	18	3.5	3.3
JUNE										
03...	1.2	10	140	5.8	1.4	3.5	2.2	18	10	3.9
27...	.57	9.9	0	8.0	1.2	2.3	2.0	20	9.6	3.6
JULY										
12...	.57	12	100	5.5	1.1	3.2	2.3	22	5.9	2.9
29...	.35	12	0	3.9	1.1	4.2	1.2	21	2.0	3.8
AUG.										
28...	.35	12	120	5.5	1.5	4.5	2.2	27	6.7	5.5

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
03...	.1	.04	.07	59	22	6	70	18.0	25
NOV.									
02...	.1	.00	.01	47	20	0	58	12.0	20
DEC.									
05...	.2	.09	.03	76	39	20	112	13.5	40
JAN.									
10...	.3	1.1	.05	67	26	16	90	4.0	27
31...	.1	.04	.00	37	13	0	44	8.0	22
MAR.									
04...	.2	.05	.01	35	12	0	46	13.5	35
28...	.1	.02	.00	39	12	0	42	12.5	25
APR.									
30...	.1	.04	.01	35	12	0	44	18.0	20
JUNE									
03...	.2	.14	.05	55	20	6	62	15.5	20
27...	.0	.24	.00	40	25	9	67	17.5	7
JULY									
12...	.1	.11	.01	64	18	0	59	--	3
29...	.1	.04	.00	46	14	0	54	19.5	5
AUG.									
28...	.1	.08	.00	64	20	0	80	20.5	3

01645784 SNAKEDEN BRANCH AT RESTON, VA.--Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
MAR.							
21...	1305	44	1770	210	39	57	71
30...	1523	96	2140	555	46	61	77
30...	1553	99	2520	674	44	58	71
APR.							
04...	0836	53	3870	554	42	58	78
04...	0853	38	2780	285	52	73	88
04...	0905	24	1590	103	56	74	89
05...	1000	112	1370	414	55	76	89
MAY							
09...	1045	30	1190	96	47	69	76
12...	1658	112	1840	556	54	68	81
12...	1729	96	1270	32	55	70	82
13...	0505	71	818	157	67	77	87
23...	1050	16	771	33	66	79	90
JUNE							
01...	1615	64	3240	560	41	56	74
16...	0155	43	5140	597	42	60	84
16...	2325	87	2120	498	35	48	66
17...	0245	21	1510	86	44	64	83
22...	0255	38	1990	20	49	71	89
22...	1925	29	1700	13	41	54	83
23...	0510	43	1200	139	39	52	71

DATE	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM	SUS. SED. SIEVE DIAM. % FINER THAN 2.00 MM
MAR.							
21...	80	91	97	99	99	100	--
30...	81	88	95	98	99	100	--
30...	80	85	90	93	94	95	95
APR.							
04...	85	93	97	98	98	100	--
04...	90	95	98	99	100	--	--
04...	91	97	99	100	--	--	--
05...	90	97	99	100	--	--	--
MAY							
09...	79	90	95	97	98	100	--
12...	87	93	97	99	100	--	--
12...	84	92	96	98	99	100	--
13...	94	98	100	--	--	--	--
23...	96	99	100	--	--	--	--
JUNE							
01...	80	97	99	100	--	--	--
16...	86	98	100	--	--	--	--
16...	82	96	98	100	--	--	--
17...	94	99	100	--	--	--	--
22...	94	99	100	--	--	--	--
22...	91	99	100	--	--	--	--
23...	86	96	98	100	--	--	--

01645784 SNAKEDEN BRANCH AT RESTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.45	180	.22	.40	40	.04	.84	5	.01
2	8.2	321	21	.49	15	.02	.84	5	.01
3	.69	15	.03	.57	10	.02	.78	4	.01
4	.70	10	.02	.57	8	.01	.70	4	.01
5	.70	9	.02	1.3	80	.28	4.4	238	5.3
6	.70	7	.01	.57	25	.04	.52	20	.03
7	.70	5	.01	.57	15	.02	.36	15	.01
8	.70	6	.01	.51	10	.01	.44	25	.03
9	.92	7	.02	1.6	90	.39	9.5	180	11
10	1.3	6	.02	.70	25	.05	.65	15	.03
11	1.2	6	.02	.70	15	.03	.37	10	.01
12	1.2	5	.02	.70	10	.02	.35	10	.01
13	1.2	5	.02	.62	10	.02	.60	12	.03
14	1.2	5	.02	.57	8	.01	.44	15	.02
15	1.1	4	.01	.45	7	.01	.35	14	.01
16	.84	4	.01	.57	7	.01	.28	13	.01
17	.84	3	.01	.57	6	.01	.32	12	.01
18	.84	3	.01	.57	6	.01	.35	7	.01
19	.84	4	.01	.57	6	.01	.32	5	0
20	.84	5	.01	.57	6	.01	2.9	111	3.6
21	.84	4	.01	.57	5	.01	19	345	35
22	.84	4	.01	.57	5	.01	.88	25	.06
23	.84	3	.01	.57	5	.01	.73	25	.05
24	.84	3	.01	.57	4	.01	.48	20	.03
25	.95	4	.01	.57	4	.01	.59	20	.03
26	1.2	3	.01	.70	8	.02	10	215	15
27	1.3	4	.01	.70	10	.02	1.9	30	.15
28	1.3	3	.01	.81	15	.03	.58	20	.03
29	6.3	399	29	.84	8	.02	.41	15	.02
30	.29	20	.02	.84	7	.02	.39	20	.02
31	.23	15	.01	--	--	--	.99	70	.19
TOTAL	40.09	--	50.61	19.91	--	1.18	61.26	--	70.73

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.63	25	.04	.70	15	.03	.27	6	0
2	.30	10	.01	.74	12	.02	.73	20	.04
3	1.2	37	.63	.99	15	.04	.30	15	.01
4	3.3	28	.52	.99	15	.04	.30	12	.01
5	.43	7	.01	.96	12	.03	.35	10	.01
6	.35	5	0	.99	10	.03	.58	15	.02
7	.29	4	0	1.3	15	.05	.59	15	.02
8	.25	3	0	.99	12	.03	.47	10	.01
9	1.6	80	.35	1.0	10	.03	.45	9	.01
10	2.1	45	.81	1.1	10	.03	.40	7	.01
11	2.7	81	1.2	1.1	9	.03	.30	10	.01
12	.55	20	.03	1.1	8	.02	.61	15	.02
13	.37	15	.01	1.3	10	.04	.42	12	.01
14	.35	12	.01	1.4	12	.05	.35	10	.01
15	.35	10	.01	1.1	10	.03	.35	10	.01
16	.35	10	.01	1.0	10	.03	.62	20	.03
17	.28	8	.01	1.2	9	.03	.45	15	.02
18	.28	6	0	1.0	9	.02	.35	12	.01
19	.54	15	.02	1.2	12	.04	.35	10	.01
20	.35	15	.01	1.1	10	.03	.35	10	.01
21	6.4	189	14	.99	9	.02	5.0	206	11
22	1.0	20	.05	2.5	60	1.6	.76	40	.08
23	.80	15	.03	.41	25	.03	.45	35	.04
24	1.2	20	.06	.31	20	.02	.36	30	.03
25	1.6	20	.09	.20	15	.01	.20	25	.01
26	.95	15	.04	.20	10	.01	.20	25	.01
27	1.1	20	.06	.23	10	.01	.13	20	.01
28	.89	15	.04	.27	8	.01	.12	20	.01
29	.82	20	.04	--	--	--	.91	162	1.6
30	.70	25	.05	--	--	--	18	491	54
31	.70	20	.04	--	--	--	1.4	20	.08
TOTAL	32.73	--	18.18	26.37	--	2.36	36.12	--	67.15

01645784 SNAKEDEN BRANCH AT RESTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.74	10	.02	.45	5	.01	3.2	188	14
2	.59	100	.16	.52	10	.01	12	169	10
3	.45	75	.09	1.6	29	.73	.98	30	.08
4	3.4	175	9.9	.57	6	.01	.70	20	.04
5	4.0	104	4.6	1.1	40	.12	.64	15	.03
6	.81	50	.11	.75	20	.04	.57	10	.02
7	.70	25	.05	.57	10	.02	.53	8	.01
8	4.8	140	1.8	.57	6	.01	.45	8	.01
9	3.2	70	.60	4.9	171	7.7	.45	9	.01
10	1.0	60	.16	.82	15	.03	.45	9	.01
11	.81	50	.11	.59	10	.02	.40	9	.01
12	.78	25	.05	17	278	57	.35	9	.01
13	1.9	68	.86	1.6	15	.06	.35	10	.01
14	.85	10	.02	1.1	10	.03	.90	33	.25
15	.77	10	.02	.88	8	.02	.74	25	.05
16	.70	8	.02	.70	6	.01	12	611	167
17	.68	8	.01	.66	5	.01	19	672	245
18	.57	7	.01	.57	5	.01	.66	20	.04
19	.64	5	.01	.64	5	.01	.57	15	.02
20	.70	5	.01	.70	4	.01	.57	12	.02
21	.70	5	.01	.70	3	.01	.57	10	.02
22	.62	4	.01	.70	4	.01	1.6	135	5.0
23	1.1	43	.29	2.6	81	2.4	3.3	183	6.9
24	.70	10	.02	.61	8	.01	.57	20	.03
25	.57	8	.01	.35	5	0	.57	10	.02
26	.45	8	.01	.35	4	0	1.3	23	.35
27	.45	7	.01	.35	4	0	.66	10	.02
28	.45	7	.01	.35	3	0	1.5	14	.15
29	.45	6	.01	.46	4	0	.65	8	.01
30	.45	5	.01	.65	7	.01	.56	8	.01
31	--	--	--	.49	5	.01	--	--	--
TOTAL	34.03	--	19.00	43.90	--	68.31	66.79	--	449.13

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.57	7	.01	.53	15	.02	.12	15	0
2	.57	6	.01	.65	20	.04	.08	20	0
3	.57	5	.01	.52	15	.02	8.9	299	30
4	.57	4	.01	6.9	257	50	.59	25	.04
5	.57	4	.01	.60	50	.08	.25	15	.01
6	.57	4	.01	.43	20	.02	9.1	99	7.8
7	.57	3	0	1.2	88	.44	8.3	77	5.7
8	.57	3	0	.35	15	.01	.59	25	.04
9	.57	3	0	1.1	10	.03	.45	30	.04
10	1.8	17	.57	2.1	52	1.7	.41	80	.09
11	.64	8	.01	.80	8	.02	.61	100	.16
12	.44	7	.01	.41	7	.01	.35	50	.05
13	.39	7	.01	.20	6	0	.29	30	.02
14	.27	7	.01	.22	6	0	1.3	112	3.0
15	.28	6	0	.20	5	0	.20	20	.01
16	.27	6	0	1.9	126	5.4	.20	15	.01
17	.70	10	.02	1.2	70	.23	.20	14	.01
18	1.3	15	.05	.15	25	.01	.20	13	.01
19	1.3	15	.05	1.6	130	7.0	.20	12	.01
20	1.2	12	.04	.45	20	.02	.24	10	.01
21	.52	10	.01	.27	15	.01	.56	25	.04
22	.34	10	.01	.20	10	.01	.28	10	.01
23	.49	25	.03	.20	9	0	.27	10	.01
24	.54	15	.02	.19	8	0	.27	7	.01
25	.35	13	.01	.18	7	0	.27	6	0
26	.35	12	.01	.62	40	.07	.35	5	0
27	.35	10	.01	.45	15	.02	.35	5	0
28	.35	10	.01	1.1	66	2.0	9.6	625	123
29	4.7	165	28	.35	100	.09	.69	30	.06
30	1.3	104	.88	2.8	138	6.5	.47	20	.03
31	.57	20	.03	.28	30	.02	--	--	--
TOTAL	23.58	--	29.85	28.15	--	73.77	45.69	--	170.17
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									458.62
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									1020.44

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.

LOCATION.--Lat 38°31'50", long 77°48'50", Fauquier County, at gaging station on left bank 80 ft (20 m) upstream from bridge on U.S. Highway 29 at Remington, 0.3 mi (0.5 km) upstream from Tinpot Run, 0.4 mi (0.6 km) downstream from Ruffans Run, 2.5 mi (4.0 km) downstream from Hazel River, and at mile 35.2.

DRAINAGE AREA.--620 mi² (1,606 km²).

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1956, October 1965 to September 1974.
Water temperatures: May 1951 to September 1956, October 1965 to September 1974.
Sediment records: April 1951 to September 1974.

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 150 micromhos Sept. 3; minimum daily, 48 micromhos May 13.
Water temperatures: Maximum, 28.0°C July 9, 10, 14; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 1,370 mg/l May 13; minimum daily, 2 mg/l Nov. 25, 26, Dec. 3, Mar. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
NOV.									
08...	385	15	40	4.8	1.8	3.7	1.6	24	4.8
DEC.									
04...	250	9.7	180	4.8	1.7	3.6	1.3	25	3.7
15...	631	12	100	4.5	1.7	3.4	1.5	20	6.8
JAN.									
01...	1540	12	20	4.6	1.7	3.0	1.6	17	8.3
15...	1090	13	0	5.0	2.3	3.0	1.1	18	6.4
FEB.									
01...	956	14	60	4.8	1.9	3.2	1.1	18	8.7
15...	664	12	10	4.6	1.8	3.3	1.0	19	5.8
MAR.									
01...	534	12	20	4.6	1.6	3.2	1.0	19	6.2
15...	438	10	40	4.8	1.7	3.5	1.1	21	5.2
APR.									
01...	1150	12	20	5.3	1.8	3.0	1.4	17	10
15...	820	12	20	4.9	1.8	3.3	1.2	20	8.1
MAY									
01...	391	9.6	10	5.2	1.8	3.6	1.5	26	6.8
15...	1220	12	20	4.3	1.6	2.9	1.5	16	7.7
JUNE									
01...	510	12	100	4.6	1.9	3.2	1.7	23	6.0
03...	2340	13	0	7.0	1.2	2.7	1.5	20	6.7
14...	357	14	0	6.1	1.5	3.1	1.3	25	4.3
15...	348	13	70	5.0	2.1	3.3	1.4	27	4.3
JULY									
01...	334	12	0	5.9	1.9	3.2	1.5	27	3.9
15...	130	8.9	0	5.9	1.9	3.6	2.0	31	3.7
AUG.									
01...	92	9.3	40	6.7	1.9	3.6	2.7	30	4.9
15...	100	12	90	11	1.8	3.4	2.2	35	4.2
SEP.									
01...	245	13	--	6.9	2.0	3.4	2.3	27	5.6
15...	245	14	40	7.0	2.0	3.5	1.9	30	6.6

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

EXTREMES.--1973-74--Continued
Sediment discharge: Maximum daily, 18,900 tons (17,150 tonnes) May 13; minimum daily, 0.71 tons (0.64 tonnes) July 24.

Period of record:
Specific conductance: Maximum daily, 150 micromhos Sept. 3, 1974; minimum daily, 46 micromhos June 20, 1972.
Water temperatures: Maximum, 32.0°C July 3, 1966, June 30, 1969; minimum, freezing point on many days during winter period.
Sediment concentrations: Maximum daily, 1,730 mg/l Mar. 12, 1963; minimum daily, 1 mg/l on many days during each year.
Sediment discharge: Maximum daily, 32,300 tons (29,300 tonnes) Mar. 12, 1963; minimum daily, less than 0.5 tons (0.5 tonnes) on many days during each year.

REMARKS.--No sediment samples collected during October and November. Sediment concentrations were estimated for this period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
NOV.									
08...	3.4	.2	.40	.01	58	20	0	61	15
DEC.									
04...	3.6	.1	.40	.01	50	19	0	62	25
15...	3.4	.1	.60	.00	46	18	2	60	17
JAN.									
01...	2.5	.1	.70	.01	45	18	4	59	17
15...	3.8	.1	.70	.00	54	22	7	59	10
FEB.									
01...	4.0	.1	.74	.00	57	20	5	57	10
15...	4.0	.2	.70	.00	44	19	4	58	10
MAR.									
01...	3.5	.1	.54	.00	47	18	2	57	15
15...	4.0	.1	.61	.00	44	19	2	59	20
APR.									
01...	3.8	.1	.63	.01	53	20	6	59	25
15...	3.8	.1	.41	.00	50	20	3	59	15
MAY									
01...	3.6	.1	.27	.00	50	20	0	62	10
15...	2.4	.1	.45	.00	47	17	4	52	20
JUNE									
01...	3.6	.1	.47	.00	52	20	0	61	15
03...	2.1	.1	.50	.00	34	22	6	58	5
14...	2.9	.1	.34	.00	44	21	1	61	5
15...	8.0	.2	.31	.00	66	21	0	69	3
JULY									
01...	4.7	.0	.27	.01	40	23	0	64	5
15...	3.8	.1	.16	.01	58	23	0	69	5
AUG.									
01...	5.5	.1	.21	.01	72	25	0	72	8
15...	3.6	.0	.22	.00	62	35	6	66	7
SEP.									
01...	3.6	.1	.45	.01	60	25	3	70	7
15...	3.6	.0	.49	.01	62	26	1	70	6

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	59	57	57	59	62	61	90	---	120
2	---	---	---	58	56	56	58	63	69	110	76	120
3	---	---	---	58	56	58	58	64	59	100	79	150
4	---	---	62	61	56	58	59	62	58	125	72	130
5	---	---	62	63	57	58	60	61	60	110	70	120
6	---	---	66	60	57	58	59	62	60	110	68	120
7	---	---	64	60	56	60	60	62	59	110	71	130
8	---	61	62	60	56	60	58	62	58	125	72	110
9	---	---	70	60	56	60	63	62	59	65	75	120
10	---	---	63	63	57	59	62	57	60	70	66	130
11	---	---	60	62	60	56	60	59	60	75	64	130
12	---	---	59	63	58	55	59	60	60	65	67	120
13	---	---	60	62	57	56	58	48	60	70	68	120
14	---	---	59	60	59	55	58	51	60	70	72	140
15	---	---	60	59	58	59	59	52	80	70	68	110
16	---	---	60	60	59	54	60	52	60	65	62	110
17	---	---	59	60	59	53	60	54	75	60	63	95
18	---	---	58	59	59	55	61	54	60	65	65	100
19	---	---	61	59	58	55	60	58	60	60	67	110
20	---	---	59	60	58	53	60	57	60	75	61	90
21	---	---	61	67	59	59	59	57	65	75	63	90
22	---	---	56	57	59	57	59	56	65	70	72	100
23	---	---	56	57	57	60	60	59	75	72	65	100
24	---	---	57	56	60	59	59	61	60	70	60	120
25	---	---	59	59	58	57	59	62	60	70	68	100
26	---	---	60	57	58	57	60	60	60	71	60	110
27	---	---	52	57	57	57	61	62	110	73	65	130
28	---	---	54	57	57	56	58	60	120	68	60	100
29	---	---	54	59	---	57	59	59	120	69	60	130
30	---	---	55	57	---	62	60	61	110	73	60	100
31	---	---	55	57	---	59	---	60	---	70	65	---
MONTH	---	---	59	60	58	57	60	59	69	80	67	115

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	5.0	5.5	6.0	5.5	18.0	17.0	19.5	26.5	20.0
2	---	---	---	4.5	5.0	5.5	8.5	16.0	16.5	18.0	20.0	20.0
3	---	---	---	4.5	4.5	7.0	9.0	9.0	16.5	15.5	18.5	19.5
4	---	---	---	4.5	0.0	8.0	9.5	8.5	15.5	27.0	18.5	19.0
5	---	---	---	4.5	0.0	9.0	9.5	8.0	16.0	20.0	19.5	17.0
6	---	---	---	4.5	0.0	7.0	6.5	6.0	18.0	20.0	26.5	17.0
7	---	---	5.5	4.5	0.0	9.5	6.5	8.5	16.5	20.0	18.5	16.5
8	---	4.5	5.0	0.0	0.0	9.5	7.0	8.0	17.0	27.0	19.5	18.0
9	---	---	5.0	0.0	0.0	5.5	7.0	9.0	18.0	26.0	19.5	16.5
10	---	---	5.0	4.5	0.0	8.5	6.0	16.0	18.0	28.0	18.5	16.5
11	---	---	4.5	4.5	0.0	6.5	8.0	15.5	17.5	27.0	16.5	19.5
12	---	---	0.0	4.5	0.0	6.0	9.5	15.5	18.5	20.5	18.5	19.5
13	---	---	0.0	0.0	4.5	5.5	9.5	9.0	18.5	20.5	20.0	19.5
14	---	---	0.0	0.0	4.5	6.0	16.0	14.5	18.5	28.0	26.5	19.5
15	---	---	0.0	0.0	5.0	6.0	16.0	15.5	19.0	26.5	26.5	18.5
16	---	---	0.0	2.0	0.0	6.0	15.5	16.5	18.0	27.0	26.5	18.5
17	---	---	0.0	5.5	0.0	6.5	8.0	18.0	16.5	27.0	20.5	19.0
18	---	---	0.0	5.0	4.5	6.5	8.0	18.5	18.5	27.0	20.5	18.5
19	---	---	0.0	5.0	0.0	6.5	9.0	16.5	19.0	26.5	19.0	18.5
20	---	---	0.0	5.5	5.0	7.0	8.0	15.5	19.5	26.5	20.0	19.5
21	---	---	0.0	5.0	4.5	7.0	15.5	16.0	19.5	20.5	20.0	19.0
22	---	---	0.0	5.0	5.5	6.5	15.5	16.5	19.5	20.5	20.0	19.0
23	---	---	0.0	5.5	6.5	8.0	16.5	18.5	18.5	18.5	20.0	19.0
24	---	---	0.0	6.0	4.5	6.5	9.5	17.0	17.0	20.5	20.0	15.5
25	---	---	4.5	5.5	4.5	6.0	9.0	16.5	17.0	20.0	20.5	16.0
26	---	---	4.5	5.5	0.0	6.5	8.5	16.5	18.5	20.5	20.0	16.0
27	---	---	5.5	5.5	0.0	9.5	15.5	16.0	17.0	18.5	20.0	18.0
28	---	---	5.5	6.0	5.0	8.5	15.5	15.5	16.5	15.5	20.5	18.0
29	---	---	5.0	6.0	---	6.5	16.0	16.0	17.0	15.5	20.5	15.5
30	---	---	5.5	6.0	---	6.0	16.5	16.5	18.5	15.5	20.0	16.5
31	---	---	5.0	5.5	---	5.5	---	18.0	---	18.5	20.0	---
MONTH	---	---	2.5	4.0	2.5	7.0	11.0	14.5	17.5	22.0	20.5	18.0

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	269	11	8.0	693	12	22	269	3	2.2
2	719	46	89	565	9	14	257	3	2.1
3	1560	76	320	469	6	7.6	250	2	1.4
4	725	31	61	415	5	5.6	251	58	39
5	492	19	25	406	5	5.5	330	18	16
6	378	15	15	533	12	17	703	70	135
7	324	13	11	435	6	7.0	482	17	22
8	315	12	10	387	5	5.2	383	4	4.1
9	338	13	12	415	5	5.6	1540	327	2050
10	329	12	11	451	7	8.5	1760	236	1310
11	318	12	10	383	5	5.2	1080	53	155
12	296	11	8.8	357	4	3.9	838	21	48
13	282	10	7.6	346	4	3.7	723	17	33
14	266	11	7.9	338	3	2.7	710	13	25
15	248	10	6.7	333	3	2.7	618	11	18
16	232	10	6.3	329	4	3.6	556	10	15
17	217	9	5.3	311	4	3.4	554	12	18
18	208	9	5.1	292	3	2.4	469	9	11
19	209	9	5.1	292	4	3.2	658	10	18
20	210	11	6.2	295	3	2.4	577	20	31
21	209	9	5.1	285	4	3.1	7550	690	14700
22	206	9	5.0	286	4	3.1	5670	275	4210
23	205	9	5.0	286	3	2.3	2380	130	835
24	206	7	3.9	278	3	2.3	1760	77	366
25	203	7	3.8	278	2	1.5	1430	41	158
26	201	7	3.8	273	2	1.5	2050	42	232
27	197	8	4.3	279	4	3.0	6330	382	6480
28	190	6	3.1	302	4	3.3	3410	132	1220
29	1610	138	600	312	3	2.5	2280	117	720
30	1940	105	550	291	3	2.4	1810	128	626
31	930	40	100	--	--	--	1510	42	171
TOTAL	14032	--	1915.0	10915	--	156.2	49188	--	33671.8

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1520	29	119	955	15	39	532	8	11
2	1280	33	114	892	13	31	528	6	8.6
3	1150	24	75	879	13	31	601	7	11
4	1350	28	102	830	9	20	547	5	7.4
5	1250	23	78	781	7	15	515	14	19
6	1100	16	48	734	9	18	499	7	9.4
7	1020	18	50	741	10	20	539	7	10
8	930	14	35	734	8	16	533	6	8.5
9	925	15	37	705	7	13	496	8	11
10	1290	32	122	691	8	15	480	6	7.8
11	1680	77	351	683	8	15	473	4	5.1
12	1640	49	217	647	7	12	497	6	8.1
13	1320	27	96	654	9	16	516	4	5.6
14	1150	15	47	685	14	26	468	3	3.8
15	1080	14	41	668	8	14	441	3	3.6
16	1040	15	42	614	9	15	441	3	3.6
17	968	17	44	617	7	12	472	4	5.1
18	870	15	35	594	10	16	442	4	4.8
19	820	12	27	570	7	11	420	4	4.5
20	792	11	24	612	27	44	451	4	4.9
21	1890	291	2460	559	7	11	604	13	26
22	2720	317	2720	557	9	14	818	24	53
23	1630	79	348	773	19	40	614	18	30
24	1380	77	287	625	13	22	547	7	10
25	1500	73	296	591	7	11	504	3	4.1
26	1400	52	197	557	6	9.0	470	2	2.5
27	1490	40	161	519	4	5.6	463	3	3.8
28	1340	34	123	528	5	7.1	449	3	3.6
29	1230	28	93	--	--	--	443	3	3.6
30	1110	24	72	--	--	--	1020	238	1280
31	1030	19	53	--	--	--	2430	493	3470
TOTAL	39895	--	8514	18995	--	518.7	18253	--	5039.5

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1280	147	508	377	8	8.1	484	25	33
2	1030	41	114	351	8	7.6	2240	846	8190
3	891	20	48	433	8	9.4	3320	548	5970
4	903	22	54	482	12	16	1620	112	490
5	1350	60	219	386	6	6.3	1180	66	210
6	1400	100	378	420	6	6.8	925	40	100
7	1070	50	144	424	6	6.9	802	50	108
8	1000	27	73	368	6	6.0	743	36	72
9	1640	248	1130	458	16	20	690	31	58
10	1300	50	176	578	13	20	599	31	50
11	1070	26	75	441	12	14	511	19	26
12	965	17	44	915	494	3220	440	20	24
13	912	18	44	4290	1370	18900	405	13	14
14	915	19	47	1680	150	680	370	12	12
15	852	16	37	1190	85	273	350	10	9.5
16	740	12	24	1100	65	193	464	21	30
17	685	14	26	899	61	148	638	57	100
18	660	12	21	745	36	72	471	22	28
19	628	11	19	711	36	69	366	11	11
20	594	5	8.0	765	57	118	331	7	6.3
21	563	5	7.6	614	28	46	342	6	5.5
22	541	8	12	548	21	31	337	17	15
23	573	12	18	564	29	44	480	165	268
24	559	15	23	698	56	104	698	151	303
25	503	7	9.5	590	31	49	470	33	42
26	476	8	10	486	20	26	371	21	21
27	453	8	9.8	437	17	20	412	23	26
28	435	9	11	414	12	13	414	32	36
29	427	9	10	377	14	14	418	27	30
30	403	9	9.8	446	18	22	439	19	23
31	--	--	--	461	15	19	--	--	--
TOTAL	24618	--	3309.7	22640	--	24182.1	21330	--	16311.3

01664000 RAPPAHANNOCK RIVER AT REMINGTON, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	350	26	25	112	7	2.1	262	47	33
2	295	13	10	88	8	1.9	206	29	16
3	264	15	11	79	6	1.3	800	356	925
4	241	9	5.9	88	46	9.4	818	363	840
5	221	5	3.0	329	99	93	504	61	83
6	238	6	3.9	202	28	15	329	19	17
7	276	7	5.2	130	22	7.7	1360	283	1220
8	251	6	4.1	109	15	4.4	1030	90	250
9	215	11	6.4	114	9	2.8	618	26	43
10	196	9	4.8	324	64	59	450	21	26
11	203	8	4.4	284	34	26	403	274	673
12	196	11	5.8	175	13	6.1	735	170	337
13	164	6	2.7	140	4	1.5	468	59	75
14	150	5	2.0	130	7	2.5	334	20	18
15	136	5	1.8	123	6	2.0	270	12	8.7
16	130	5	1.8	140	5	1.9	237	11	7.0
17	117	4	1.3	160	15	6.5	221	8	4.8
18	106	3	.86	391	178	189	206	8	4.4
19	109	3	.88	213	28	16	194	10	5.2
20	106	3	.86	262	31	22	179	8	3.9
21	98	3	.79	175	14	6.6	172	6	2.8
22	88	5	1.2	168	12	5.4	164	3	1.3
23	83	4	.90	504	33	45	157	3	1.3
24	88	3	.71	279	27	20	146	5	2.0
25	100	4	1.1	213	10	5.8	136	6	2.2
26	106	4	1.1	284	38	29	140	4	1.5
27	112	5	1.5	403	80	87	140	3	1.1
28	130	4	1.4	292	40	32	140	3	1.1
29	117	5	1.6	450	125	182	174	4	1.9
30	153	10	4.1	408	77	85	151	3	1.2
31	168	9	4.1	334	50	45	--	--	--
TOTAL	5207	--	120.20	7103	--	1012.9	11144	--	4606.4

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	243520
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	99357.80

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.

LOCATION.--Lat 38°19'20", long 77°31'05", Spotsylvania County, at gaging station on right bank 1.6 mi (2.6 km) upstream from dam of Virginia Electric and Power Co., 2.2 mi (3.5 km) downstream from Motts Run, 3.8 mi (6.1 km) upstream from Fredericksburg, and at mile 4.4.

DRAINAGE AREA.--1,596 mi² (4,134 km²).

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1955 to September 1956, February 1967 to August 1974 (discontinued).
Water temperatures: October 1955 to September 1956, April 1968 to August 1974 (discontinued).

WATER QUALITY DATA, PERIOD OCTOBER 1973 TO AUGUST 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	510	9.9	60	5.8	2.2	4.0	2.1	31	4.6
15...	648	13	20	6.0	2.2	3.8	2.0	30	5.4
NOV.									
01...	672	9.0	60	4.5	1.6	2.8	2.6	19	6.9
15...	770	12	20	5.2	1.7	3.4	1.7	24	4.0
DEC.									
01...	664	8.4	40	5.6	1.8	3.8	1.7	28	3.9
15...	1940	12	20	5.2	2.0	3.4	1.7	21	6.4
JAN.									
01...	5030	11	60	5.7	2.3	3.4	1.8	19	8.9
15...	2620	12	20	5.6	2.2	3.1	1.2	20	8.3
FEB.									
01...	2280	12	20	5.7	2.3	3.2	1.2	21	7.3
15...	1560	12	20	5.6	2.0	3.5	1.1	22	6.6
MAR.									
01...	1190	8.1	20	5.1	1.8	3.4	1.1	22	5.6
15...	1150	9.2	50	5.7	2.1	3.6	1.1	25	6.4
APR.									
01...	3950	9.2	30	5.4	2.3	3.4	2.0	18	12
15...	1980	10	50	5.1	2.0	3.8	1.4	22	8.3
MAY									
01...	820	7.3	40	5.0	1.8	3.6	1.3	24	6.9
15...	2980	11	0	5.0	1.5	2.5	1.5	16	6.6
JUNE									
01...	910	11	0	6.0	1.8	3.5	1.5	25	4.3
15...	648	12	0	6.0	1.8	3.3	1.5	26	4.3
JULY									
01...	850	11	--	6.3	2.6	4.5	2.2	28	6.4
15...	304	6.8	10	7.8	2.5	4.1	2.5	33	4.4
AUG.									
01...	410	7.1	0	5.7	2.3	4.0	2.5	30	3.8
15...	362	8.8	20	4.9	1.9	3.0	2.8	26	4.0

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 90 micromhos July 23, 25; minimum daily, 54 micromhos May 15, 16.
Water temperatures: Maximum, 29.0°C July 20; minimum, freezing point on Dec. 19, 20.

Period of record:
Specific conductance (1955-56, 1968-74): Maximum daily, 188 micromhos Jan. 1, 1970; minimum daily, 31 micromhos Jan. 19, 1969.
Water temperatures: Maximum, 32.0°C June 28, 1969; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, PERIOD OCTOBER 1973 TO AUGUST 1974

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED ORTHO. PHOS- PHORUS (P) (MG/L)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	COLOR (PLAT- INUM- COBALT UNITS)
OCT.									
01...	4.1	.1	.20	.01	62	24	0	72	10
15...	4.5	.1	.30	.01	68	24	0	74	10
NOV.									
01...	2.9	.1	.60	.00	41	18	2	61	10
15...	4.1	.1	.30	.00	48	20	0	66	7
DEC.									
01...	3.5	.1	.04	.00	43	22	0	66	12
15...	4.1	.1	.60	.01	50	21	4	69	30
JAN.									
01...	4.4	.1	.80	.02	55	24	8	73	25
15...	4.4	.1	.90	.00	54	23	6	66	23
FEB.									
01...	4.4	.1	.72	.00	53	24	6	65	25
15...	5.1	.1	.72	.00	51	22	4	66	15
MAR.									
01...	4.3	.1	.63	.00	48	20	2	61	20
15...	4.7	.1	.41	.00	49	22	2	69	25
APR.									
01...	3.0	.1	.77	.01	66	23	8	66	30
15...	3.5	.1	.70	.00	50	20	2	63	10
MAY									
01...	3.9	.1	.16	.01	44	20	0	60	15
15...	2.7	.1	.57	.00	31	19	6	55	10
JUNE									
01...	3.2	.1	.42	.00	38	22	2	64	5
15...	3.0	.1	.34	.00	40	22	1	64	7
JULY									
01...	5.1	.2	.59	.00	80	26	3	83	4
15...	5.6	.1	.17	.01	64	30	3	84	7
AUG.									
01...	5.4	.1	.21	.00	56	24	0	76	7
15...	5.1	.1	.33	.00	60	20	0	69	20

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), PERIOD OCTOBER 1973 TO AUGUST 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	61	66	73	65	61	66	60	65	75	75	---
2	73	60	---	72	65	60	65	60	---	70	75	---
3	64	59	67	68	---	---	65	62	80	---	75	---
4	70	---	67	68	63	61	64	64	73	---	---	---
5	71	61	65	78	65	61	64	---	70	75	70	---
6	73	63	63	---	66	63	---	64	65	60	65	---
7	---	62	87	69	65	62	---	64	65	---	78	---
8	73	66	75	69	62	61	66	64	62	75	75	---
9	73	68	---	69	66	62	61	62	---	65	70	---
10	73	66	76	66	---	---	71	61	61	65	75	---
11	73	---	68	81	65	62	67	70	63	60	---	---
12	72	66	66	75	68	64	64	---	65	60	75	---
13	73	66	66	---	67	61	63	55	65	70	74	---
14	---	65	64	68	66	66	---	55	62	---	69	---
15	74	66	69	66	66	69	63	54	65	80	66	---
16	72	64	---	64	65	65	62	54	---	80	75	---
17	71	70	67	65	---	---	64	56	60	74	71	---
18	70	---	68	66	63	62	63	60	---	75	---	---
19	71	65	66	64	64	65	62	---	---	70	73	---
20	69	66	78	---	64	65	60	60	---	75	75	---
21	---	66	68	64	63	62	---	62	---	---	76	---
22	69	---	---	72	64	64	60	60	70	74	72	---
23	70	67	---	65	64	75	59	60	---	90	68	---
24	69	66	---	64	---	---	58	61	60	85	---	---
25	69	---	---	63	65	68	61	67	80	90	---	---
26	70	64	68	76	63	63	61	---	75	80	---	---
27	70	65	63	69	62	62	60	---	60	85	---	---
28	---	66	74	72	60	61	---	65	80	---	---	---
29	70	66	---	68	---	59	60	65	---	85	---	---
30	69	65	---	68	---	62	59	64	---	75	---	---
31	64	---	---	67	---	---	---	63	---	78	---	---
MONTH	71	65	---	69	64	63	63	61	---	75	---	---

01668000 RAPPAHANNOCK RIVER NEAR FREDERICKSBURG, VA.--Continued

TEMPERATURE (DEG. C) OF WATER, PERIOD OCTOBER 1973 TO AUGUST 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	12.0	8.0	5.5	7.0	6.0	8.0	21.0	21.0	22.0	27.0	---
2	20.5	11.5	---	5.0	7.0	7.0	10.0	20.0	---	22.0	27.0	---
3	18.5	12.0	5.5	5.0	---	---	11.0	17.0	19.0	---	26.0	---
4	18.0	---	5.0	5.0	4.0	11.0	14.5	17.5	19.0	---	---	---
5	19.5	10.0	7.0	4.5	3.0	12.0	15.0	---	20.0	22.5	25.0	---
6	18.5	8.5	9.0	---	3.0	12.0	---	15.0	21.0	22.0	25.0	---
7	---	7.0	8.5	4.5	3.0	11.0	---	15.0	22.0	---	24.5	---
8	17.5	7.0	8.0	4.0	3.0	12.0	12.0	14.0	20.0	22.0	25.0	---
9	18.0	7.0	---	4.0	3.0	13.5	11.0	15.0	---	23.0	24.0	---
10	18.0	5.5	5.0	4.0	---	---	9.0	15.0	23.0	28.0	24.0	---
11	18.0	---	5.0	4.5	2.5	10.5	9.0	16.0	25.0	28.0	---	---
12	17.5	5.0	4.0	5.0	2.5	9.5	10.5	---	24.0	26.0	24.0	---
13	17.0	5.5	4.5	---	3.0	7.0	13.5	15.0	23.0	25.0	24.0	---
14	---	6.5	4.0	3.0	4.5	6.5	---	15.0	23.0	---	25.0	---
15	17.0	8.0	4.0	2.0	5.0	6.0	17.0	17.0	22.0	26.0	26.0	---
16	17.0	10.0	---	2.5	5.0	8.0	16.0	19.0	---	27.0	---	---
17	16.0	9.5	2.0	4.0	---	---	14.0	22.0	22.0	27.0	27.0	---
18	13.5	---	1.0	5.0	4.0	7.0	14.5	21.0	---	27.0	---	---
19	13.0	8.0	0.0	5.5	4.0	8.5	15.0	---	---	28.0	24.0	---
20	13.0	8.5	0.0	---	4.0	9.0	13.0	20.0	---	29.0	24.0	---
21	---	8.0	1.5	6.0	4.5	9.0	---	20.0	---	---	25.0	---
22	13.5	---	---	6.0	7.0	8.0	16.0	20.0	23.0	26.0	25.5	---
23	13.0	8.0	---	6.5	8.5	9.0	17.5	22.0	---	26.0	26.0	---
24	13.0	9.0	---	8.0	---	---	17.0	22.0	22.0	24.5	---	---
25	13.0	---	---	7.0	6.5	8.5	13.0	21.0	21.5	24.5	---	---
26	13.0	10.5	4.5	6.5	4.0	7.0	14.0	---	21.0	24.0	---	---
27	13.5	12.0	6.0	7.0	3.0	8.0	15.0	---	21.0	24.0	---	---
28	---	13.0	6.0	8.0	4.0	9.0	---	18.0	20.0	---	---	---
29	14.0	12.5	---	8.5	---	10.5	18.0	19.0	---	26.0	---	---
30	13.0	9.0	---	8.0	---	8.5	20.0	20.0	---	26.5	---	---
31	12.0	---	---	8.0	---	---	---	20.0	---	27.0	---	---
MONTH	16.0	9.0	---	5.5	4.5	9.0	13.5	18.5	---	25.5	---	---

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.

LOCATION.--Lat 37°46'03", long 77°19'57", Hanover-King William County line, at gaging station near center of span on downstream side of bridge on State Highway 614, 0.3 mi (0.5 km) upstream from Mechumps Creek, 2.0 mi (3.2 km) east of Hanover, and 7.0 mi (11.3 km) upstream from Millpond Creek.

DRAINAGE AREA.--1,081 mi^2 (2,800 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1945 to September 1946, October 1951 to September 1952, February 1967 to September 1974.
Water temperatures: October 1945 to September 1946, April 1968 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	140	11	40	5.7	2.6	4.6	2.6	32	8.9
15...	205	12	40	5.9	2.6	4.7	2.3	31	8.7
NOV.									
01...	385	11	60	5.7	2.3	3.8	2.3	27	7.3
15...	445	12	40	5.2	2.4	4.6	2.3	32	5.6
DEC.									
01...	438	12	30	5.2	2.4	4.6	2.2	30	5.2
15...	1020	6.0	60	3.2	1.7	4.1	2.5	12	8.3
JAN.									
01...	2670	13	100	4.8	2.6	4.0	1.6	19	9.3
15...	986	12	20	4.6	2.0	4.1	1.7	22	8.3
FEB.									
01...	1190	11	100	4.6	1.9	3.7	1.7	22	7.9
15...	1040	11	30	4.9	2.0	4.0	1.6	22	10
MAR.									
01...	822	11	20	4.4	1.9	3.6	1.6	20	8.3
15...	1880	9.0	--	4.0	1.8	3.6	1.7	16	8.9
APR.									
01...	6550	10	100	4.3	2.0	3.7	1.6	18	9.6
15...	1420	11	60	4.3	2.0	3.7	1.6	18	10
MAY									
01...	728	14	70	5.6	2.4	4.1	2.0	28	6.0
15...	3000	13	60	5.2	2.4	4.1	1.9	30	6.0
JUNE									
01...	540	9.0	0	6.3	1.9	3.3	2.1	22	7.3
15...	351	14	0	7.3	2.2	4.4	1.8	32	5.1
JULY									
01...	533	11	40	5.4	2.5	3.9	1.9	38	5.0
15...	170	5.8	50	5.0	1.7	3.0	2.6	21	7.6
AUG.									
01...	792	10	80	5.0	2.1	4.1	2.9	23	7.9
15...	358	11	90	6.2	2.4	4.5	2.3	28	6.5
SEP.									
01...	202	13	--	6.2	2.4	4.2	2.5	25	7.2
15...	550	13	200	5.0	2.1	3.9	2.2	33	7.4

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 120 micromhos June 20; minimum daily, 40 micromhos Sept. 11, 18, 20, 22, 23.
Water temperatures: Maximum, 27.0°C on several days during July; minimum, 1.0°C Dec. 14-17.

Period of record:
Specific conductance (1968-74): Maximum daily, 142 micromhos Sept. 27-30, Oct. 1, 2, 1970; minimum daily, 40 micromhos Sept. 11, 18, 20, 22, 23, 1974.
Water temperatures: Maximum, 28.0°C on several days in 1968 and 1973; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	2.7	.1	.09	.00	62	24	0	87	20
15...	2.0	.1	.09	.00	61	25	0	82	20
NOV.									
01...	3.8	.1	.03	.06	55	24	2	72	27
15...	3.9	.1	.00	.00	59	23	0	74	20
DEC.									
01...	4.2	.1	.02	.00	56	23	0	73	25
15...	4.6	.1	.20	.05	50	15	5	55	35
JAN.									
01...	4.7	.1	.13	.00	61	22	7	58	25
15...	4.4	.1	.32	.00	56	20	2	62	13
FEB.									
01...	4.3	.1	.17	.00	47	20	2	61	20
15...	4.0	.1	.06	.00	52	20	2	56	25
MAR.									
01...	4.0	.1	.14	.00	57	19	2	65	35
15...	3.9	.1	.41	.04	55	18	4	59	45
APR.									
01...	3.0	.1	.27	.00	55	18	4	62	25
15...	3.8	.1	.20	.00	54	18	4	60	30
MAY									
01...	3.4	.2	.22	.00	57	24	1	66	20
15...	3.5	.1	.11	.07	56	23	0	68	20
JUNE									
01...	3.1	.1	.37	.00	44	24	6	67	10
15...	3.5	.1	.13	.00	45	27	1	75	7
JULY									
01...	5.0	.1	.03	.00	54	24	0	75	5
15...	2.8	.0	.19	.00	62	19	2	60	20
AUG.									
01...	4.1	.0	1.1	.01	82	21	2	67	20
15...	4.2	.2	.32	.00	56	25	2	76	10
SEP.									
01...	4.3	.0	.67	.00	80	25	5	74	20
15...	3.8	.2	.32	.01	70	21	0	60	6

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	72	73	68	61	65	62	66	65	70	75	70
2	66	73	72	69	63	64	62	68	65	75	70	60
3	69	74	55	68	64	63	61	68	65	80	70	60
4	68	70	55	69	65	66	61	70	74	80	75	65
5	69	72	55	69	65	63	59	67	74	80	79	70
6	81	72	56	70	66	63	60	66	72	70	65	70
7	80	74	55	69	66	---	62	68	74	75	75	45
8	80	73	55	69	66	64	62	69	74	75	75	50
9	82	72	56	68	65	66	60	69	72	80	80	60
10	82	72	56	63	67	64	59	70	74	---	70	85
11	81	75	56	64	65	63	60	65	73	---	75	40
12	82	75	56	64	66	59	60	66	74	---	75	45
13	82	74	56	64	68	59	55	67	75	---	75	50
14	83	75	55	63	68	61	59	68	73	---	70	65
15	82	74	55	62	66	59	60	68	72	---	70	60
16	83	78	56	61	66	59	61	67	70	---	75	65
17	82	78	61	65	68	59	59	67	70	---	70	60
18	75	78	61	63	68	60	59	67	75	---	80	40
19	76	75	62	64	66	60	60	68	105	---	80	55
20	75	75	62	62	68	58	57	67	120	---	70	40
21	76	75	62	63	68	60	59	68	90	---	70	45
22	74	73	62	61	68	60	59	66	90	79	75	40
23	73	73	62	61	68	59	58	73	100	80	75	40
24	74	74	62	61	69	60	58	75	110	79	70	45
25	75	74	61	62	68	59	59	74	80	81	65	60
26	73	74	62	61	69	60	59	74	75	76	70	50
27	75	76	62	61	63	61	57	74	75	64	70	45
28	74	77	63	62	66	61	59	74	75	66	60	55
29	74	75	68	62	---	61	65	74	60	65	65	55
30	74	78	69	61	---	60	69	75	80	---	65	60
31	72	---	69	62	---	61	---	73	---	---	70	---
MONTH	77	74	60	64	66	61	60	69	78	---	72	55

01673000 PAMUNKEY RIVER NEAR HANOVER, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	12.0	8.0	6.0	5.0	6.5	13.5	18.5	20.0	24.0	25.5	25.0
2	20.0	11.0	8.0	6.0	5.0	7.0	13.5	18.5	20.0	25.5	25.0	25.0
3	19.0	10.5	7.5	7.0	5.0	7.0	13.5	18.0	20.0	26.0	25.5	25.0
4	19.0	10.5	6.0	7.0	5.0	8.0	13.5	17.5	20.5	27.0	25.5	24.0
5	19.0	9.5	6.0	7.0	5.0	8.5	13.5	18.5	21.0	27.0	25.5	21.5
6	19.0	9.5	5.5	7.0	5.0	9.0	13.5	18.5	21.0	27.0	25.5	20.5
7	19.0	9.5	5.5	7.0	5.0	---	14.0	18.0	20.5	27.0	25.5	20.5
8	18.5	9.0	4.0	7.0	5.5	9.0	14.0	18.5	20.0	27.0	25.0	20.0
9	19.0	9.0	3.0	7.0	5.5	9.0	15.0	19.0	20.5	27.0	24.5	20.0
10	18.0	9.0	3.0	5.0	5.5	9.0	15.0	19.0	20.5	---	25.0	20.0
11	17.0	9.0	3.0	5.0	6.0	9.0	15.0	19.0	21.0	---	25.0	20.0
12	17.0	9.0	3.0	5.5	6.0	9.0	15.0	19.5	22.0	---	25.0	20.0
13	16.0	10.5	2.0	6.5	6.0	9.5	15.0	20.0	22.0	---	25.0	20.0
14	16.0	11.0	1.0	7.0	6.0	10.0	15.5	20.0	22.0	---	26.0	21.0
15	16.0	11.0	1.0	7.0	6.0	10.0	15.5	20.0	22.0	---	26.0	20.5
16	16.0	12.0	1.0	8.0	6.0	11.0	15.5	20.5	22.0	---	26.0	20.5
17	16.0	12.0	1.0	9.0	6.0	11.0	15.5	20.5	22.0	---	26.0	20.5
18	16.0	12.0	1.5	9.0	6.5	11.5	16.0	20.0	23.0	---	26.0	21.5
19	16.0	13.0	3.0	9.0	6.5	12.0	16.0	20.0	23.0	---	26.0	21.0
20	16.0	13.0	3.0	9.0	6.5	12.0	16.0	20.0	22.0	---	26.0	21.0
21	16.0	13.0	4.0	9.0	6.0	12.0	17.0	20.0	23.0	---	26.0	21.0
22	15.0	13.0	4.0	9.0	7.0	12.0	17.0	20.0	24.0	26.5	26.0	21.0
23	15.5	13.0	4.0	7.5	6.5	12.0	17.0	20.0	24.0	26.5	25.5	21.0
24	15.0	12.0	4.0	7.0	6.5	12.0	17.0	20.0	24.0	26.0	26.0	21.0
25	14.0	10.0	4.0	7.0	6.5	12.0	18.0	19.5	24.5	26.0	26.0	20.5
26	14.0	10.0	4.0	7.0	6.0	12.0	18.0	19.5	24.0	25.0	26.5	20.5
27	13.5	9.0	5.0	6.0	6.0	12.5	18.0	19.5	25.0	25.0	26.5	20.5
28	13.0	9.0	5.0	5.5	6.5	12.5	18.0	20.5	24.5	25.0	26.5	20.5
29	13.0	9.0	5.0	5.5	---	13.0	18.0	21.0	24.5	25.0	26.0	21.0
30	13.0	8.0	5.5	5.0	---	13.0	18.0	20.5	25.0	---	25.5	21.0
31	12.0	---	5.5	5.0	---	13.0	---	20.0	---	---	25.5	---
MONTH	16.5	10.5	4.0	7.0	6.0	10.5	15.5	19.5	22.5	---	25.5	21.0

JAMES RIVER BASIN

02012500 JACKSON RIVER AT FALLING SPRING, VA.

LOCATION.--Lat 37°52'36", long 79°58'39", Alleghany County, at gaging station on right bank 20 ft (6 m) upstream from Smith Bridge, 0.8 mi (1.3 km) south of town of Falling Spring, 1.6 mi (2.6 km) downstream from Falling Spring Creek, and 5.5 mi (8.8 km) north of Covington.

DRAINAGE AREA.--411 mi² (1,064 km²).

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1947 to September 1948, November 1967 to September 1974.
Water temperatures: December 1968 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	152	6.1	0	39	6.0	1.9	2.2	12.	32
15...	142	5.8	0	38	5.9	2.3	2.4	115	35
NOV.									
01...	650	7.4	10	22	3.4	1.7	1.7	70	14
15...	209	6.2	0	30	4.6	1.9	1.7	92	22
DEC.									
01...	554	5.4	0	19	2.6	1.6	1.3	60	14
14...	452	4.4	20	21	3.2	2.2	1.3	65	16
JAN.									
01...	1290	5.5	10	17	2.3	1.6	1.1	55	10
15...	1110	5.6	0	19	2.7	1.4	1.2	59	8.9
FEB.									
01...	758	4.6	20	20	3.0	1.8	1.2	64	14
15...	327	4.0	10	25	3.8	1.7	1.3	82	17
MAR.									
01...	462	3.6	20	22	3.5	1.7	1.3	68	14
15...	1150	4.4	20	17	2.2	1.3	1.0	53	10
31...	570	4.2	0	24	2.8	1.6	1.2	72	15
APR.									
15...	510	3.8	0	21	2.9	1.6	1.2	71	15
MAY									
01...	269	4.4	40	29	3.8	1.8	1.8	98	21
15...	1310	5.5	20	16	2.3	1.8	1.3	55	11
JUNE									
01...	1030	4.1	10	17	2.6	.9	1.1	59	8.6
03...	2480	5.6	0	16	1.9	1.2	1.1	48	7.3
15...	275	4.1	0	32	4.0	1.6	1.5	91	18
JULY									
11...	188	5.4	10	35	4.9	1.5	2.1	104	23
AUG.									
01...	158	6.0	170	33	5.5	2.1	2.3	101	28
15...	131	6.6	--	37	5.4	2.2	2.2	110	30
SEP.									
01...	140	7.2	40	40	5.9	1.8	2.3	115	35
15...	127	6.8	20	35	6.1	2.1	2.0	115	32

02012500 JACKSON RIVER AT FALLING SPRING, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 279 micromhos Oct. 27; minimum daily, 82 micromhos Jan. 11.
Water temperatures: Maximum, 27.0°C July 29; minimum, 5.0°C Feb. 4.

Period of record:
Specific conductance (1968-74): Maximum daily, 500 micromhos Oct. 2, 1970; minimum daily, 77 micromhos Dec. 31, 1969.
Water temperatures: Maximum, 29.0°C Aug. 13, 14, 1970; minimum, freezing point on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	2.4	.2	.00	.00	161	120	23	265	10
15...	1.0	.2	.02	.00	154	120	26	250	10
NOV.									
01...	2.8	.1	.10	.00	93	69	12	155	33
15...	2.6	.1	.00	.00	112	94	18	205	15
DEC.									
01...	1.3	.1	.20	.00	7[illegible]	58	9	132	0
14...	2.2	.1	.20	.00	89	66	12	144	20
JAN.									
01...	2.0	.1	.40	.01	71	52	7	112	15
15...	2.6	.1	.43	.00	79	58	10	126	10
FEB.									
01...	1.9	.1	.34	.02	90	62	10	134	7
15...	2.2	.1	.06	.00	100	78	11	177	20
MAR.									
01...	2.3	.1	.15	.00	84	70	14	146	15
15...	2.2	.1	1.8	.00	67	52	8	110	20
31...	2.4	.1	.27	.01	95	72	12	149	10
APR.									
15...	2.2	.1	.08	.00	87	64	6	148	10
MAY									
01...	1.4	.1	.09	.01	113	88	16	185	7
15...	2.0	.1	.25	.00	81	50	4	114	17
JUNE									
01...	.9	.0	.09	.00	80	53	5	118	7
03...	1.4	.1	.16	.00	59	48	8	104	7
15...	2.0	.1	.02	.00	105	96	22	189	5
JULY									
11...	5.4	.2	.01	.00	140	110	22	214	3
AUG.									
01...	2.3	.2	.10	.00	150	110	22	218	5
15...	2.4	.1	.08	.00	170	110	24	235	3
SEP.									
01...	2.0	.0	.03	.00	196	120	30	247	5
15...	2.3	.1	.08	.00	136	110	18	220	3

02012500 JACKSON RIVER AT FALLING SPRING, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	155	132	112	134	146	---	185	120	190	238	250
2	213	144	140	128	134	148	---	190	114	170	221	---
3	185	160	150	126	138	---	158	186	95	192	210	240
4	---	170	160	122	148	144	121	---	117	---	200	230
5	210	---	157	120	---	144	97	---	130	200	205	210
6	---	---	---	118	157	---	106	178	---	200	210	220
7	230	170	120	126	165	147	116	180	150	---	230	200
8	---	175	128	134	165	136	124	180	160	210	220	230
9	227	180	126	---	165	---	128	174	170	208	220	210
10	210	170	113	98	170	130	134	104	170	220	210	200
11	220	---	126	82	175	136	138	112	---	222	210	200
12	---	---	146	90	160	112	140	100	185	---	220	210
13	240	---	---	102	---	95	140	89	190	---	220	200
14	245	195	144	116	178	---	140	102	195	---	230	230
15	250	205	142	126	177	110	148	114	205	---	240	220
16	255	205	141	128	---	114	153	124	---	---	210	200
17	250	199	140	142	167	120	155	128	160	---	230	200
18	260	200	---	150	174	118	165	---	170	---	220	230
19	269	200	---	154	176	118	165	144	190	---	220	210
20	---	199	155	156	163	112	---	155	190	---	230	200
21	---	200	84	126	165	102	169	---	---	---	220	230
22	269	---	99	98	170	92	175	165	200	250	245	240
23	270	---	110	114	110	---	168	170	180	250	230	220
24	270	210	124	---	112	---	165	179	---	246	240	220
25	275	210	130	95	132	120	169	---	170	230	250	240
26	270	210	132	92	122	130	167	185	170	240	250	240
27	279	200	86	98	---	---	179	190	---	230	240	230
28	---	136	---	104	---	142	170	194	160	225	250	230
29	250	100	112	110	---	144	175	193	150	230	---	240
30	225	117	114	---	---	148	180	---	160	200	245	250
31	---	---	118	---	---	149	---	---	---	210	240	---
MONTH	---	---	128	117	155	---	150	---	163	---	227	222

02012500 JACKSON RIVER AT FALLING SPRING, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.5	12.0	11.0	8.5	13.0	12.0	---	21.0	19.0	21.0	24.0	22.0
2	18.5	12.0	10.0	8.5	11.5	13.0	---	18.0	17.0	24.0	23.0	---
3	18.5	13.0	8.5	9.0	13.0	---	15.0	18.0	18.0	24.0	23.0	22.0
4	---	13.0	10.0	9.0	5.0	13.0	15.0	---	18.5	---	23.0	23.0
5	22.0	---	12.0	10.5	---	14.0	13.5	---	19.5	24.0	23.0	23.0
6	---	---	---	11.0	7.0	---	12.0	16.0	---	23.0	22.0	22.0
7	19.0	12.0	10.5	9.0	8.0	14.0	12.0	16.5	20.5	---	23.0	23.0
8	---	9.5	9.5	9.5	9.0	12.0	10.5	17.0	21.0	25.0	25.0	25.0
9	19.0	11.0	9.0	---	8.0	---	10.0	17.5	22.0	25.0	24.0	24.5
10	19.0	9.0	8.0	11.0	7.0	15.0	12.0	17.0	24.0	25.0	23.0	23.0
11	19.0	---	6.5	11.0	8.0	13.5	14.0	18.0	---	26.0	22.0	22.0
12	---	---	7.0	8.0	8.0	10.0	15.0	13.0	21.0	---	22.5	22.0
13	19.0	---	---	8.0	---	9.0	16.5	14.0	21.0	---	22.0	22.0
14	18.5	11.5	7.0	8.0	11.0	---	16.0	16.0	20.5	---	23.0	23.0
15	19.0	13.0	7.0	8.0	11.0	9.0	16.0	17.5	19.0	---	25.5	23.0
16	17.5	11.0	7.0	9.0	---	11.5	16.0	19.0	---	---	25.0	22.5
17	15.0	11.5	6.0	12.0	9.0	10.0	14.0	19.0	18.5	---	26.5	23.0
18	16.0	12.0	---	11.0	9.0	10.5	16.5	---	20.0	---	26.0	22.5
19	17.0	12.0	---	11.0	9.0	12.0	16.5	21.0	21.0	---	23.5	22.0
20	---	11.0	7.0	10.5	10.0	11.0	---	20.5	22.0	---	23.5	23.5
21	---	10.0	9.0	12.0	9.0	12.0	17.0	---	---	---	26.0	23.5
22	16.5	---	7.5	10.0	10.0	9.0	16.0	21.0	22.0	25.0	25.5	26.0
23	15.5	---	8.0	11.0	11.0	---	17.0	22.0	20.0	22.5	25.0	25.5
24	15.0	13.0	7.0	---	10.0	---	14.0	21.0	---	23.0	25.5	25.5
25	15.0	13.0	7.0	10.5	8.0	9.0	16.0	---	22.0	24.0	25.0	26.0
26	16.0	12.0	9.0	11.0	8.5	10.5	17.0	18.5	22.0	24.0	26.0	26.0
27	14.0	12.0	13.0	12.0	---	---	17.5	19.0	---	26.0	26.0	26.0
28	---	11.0	---	12.0	---	13.0	18.0	19.0	18.0	26.0	24.0	26.0
29	12.0	10.0	12.0	11.5	---	12.0	18.0	20.0	21.0	27.0	---	25.5
30	11.0	10.5	9.0	---	---	12.0	19.0	---	21.0	24.0	24.5	24.5
31	---	---	8.5	---	---	14.0	---	---	---	25.0	24.0	---
MONTH	---	---	8.5	10.0	9.5	---	15.0	---	20.5	---	24.0	23.5

02019500 JAMES RIVER AT BUCHANAN, VA.

LOCATION.--Lat 37°31'50", long 79°40'45", Botetourt County, at gaging station on left bank at Chesapeake and Ohio Railway station at Buchanan, 300 ft (91 m) upstream from bridge on U.S. Highway 11, 1,000 ft (305 m) upstream from Purgatory Creek, 1.5 mi (2.4 km) downstream from Looney Creek, and at mile 306.4.

DRAINAGE AREA.--2,075 mi² (5,374 km²).

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1947 to September 1948, October 1951 to September 1956, February 1967 to September 1973.
Water temperatures: October 1947 to September 1948, May 1951 to September 1956, April 1968 to September 1974.
Sediment records: May 1951 to September 1956.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	680	6.2	10	49	7.4	36	3.3	130	53
15...	715	5.7	10	42	6.5	32	2.6	119	58
NOV.									
01...	2640	5.8	40	35	5.8	15	2.8	98	41
15...	1020	4.8	20	34	5.2	27	3.1	101	41
DEC.									
01...	2930	5.6	30	19	3.0	6.5	1.6	54	18
15...	2820	5.3	10	21	3.6	9.0	1.6	60	22
JAN.									
01...	9650	5.7	10	16	3.2	3.7	1.4	50	13
15...	5210	5.9	20	18	3.2	4.6	1.2	54	16
FEB.									
01...	4220	5.4	0	19	3.4	4.5	1.3	62	15
15...	1770	4.4	30	28	4.6	11	1.7	86	23
MAR.									
01...	2460	4.4	20	21	3.6	9.1	1.5	67	21
15...	6500	5.9	10	15	2.6	3.5	1.1	47	12
APR.									
01...	3170	4.6	10	24	3.3	6.2	1.4	65	21
15...	2560	4.4	10	25	4.0	7.1	1.4	76	18
MAY									
01...	1240	3.8	20	33	5.3	14	2.0	100	24
15...	6560	5.9	20	15	2.5	3.4	1.3	47	12
JUNE									
01...	1800	3.9	80	30	5.3	15	2.2	94	28
15...	1190	2.4	0	36	4.5	11	1.7	97	22
JULY									
01...	1380	4.1	130	37	5.5	14	2.1	102	28
15...	646	3.4	20	41	6.3	16	2.5	111	30
AUG.									
01...	770	4.5	--	38	5.8	15	2.3	105	27
15...	670	4.5	--	44	6.4	19	2.5	104	31
SEP.									
01...	560	6.5	--	53	6.9	40	4.0	81	48
15...	786	5.4	--	38	6.5	16	2.3	103	31

02019500 JAMES RIVER AT BUCHANAN, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 515 micromhos Oct. 24, 27; minimum daily, 88 micromhos Dec. 27.
Water temperatures: Maximum, 27.0°C July 9; minimum, freezing point on Dec. 19.

Period of record:
Specific conductance (1952-56, 1968-74): Maximum daily, 945 micromhos Sept. 27, 1954; minimum daily, 73 micromhos Mar. 25, 1953.
Water temperatures: Maximum, 31.0°C July 5, 1955; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	52	.3	.60	.01	298	150	46	480	70
15...	33	.2	.09	.00	246	130	34	410	45
NOV.									
01...	21	.2	.30	.04	189	110	31	320	30
15...	31	.2	.04	.00	211	110	24	340	40
DEC.									
01...	12	.1	.20	.00	102	60	16	165	25
15...	14	.1	.20	.00	118	68	18	185	30
JAN.									
01...	5.7	.1	.25	.00	86	53	12	126	15
15...	6.4	.1	.36	.01	83	58	14	138	15
FEB.									
01...	7.6	.1	.25	.00	89	62	10	149	10
15...	16	.1	.20	.00	144	89	18	250	25
MAR.									
01...	11	.2	.11	.00	107	68	12	185	25
15...	6.6	.1	.17	.00	70	48	10	124	17
APR.									
01...	12	.1	.02	.01	108	74	20	180	15
15...	13	.1	.03	.00	123	78	16	204	13
MAY									
01...	24	.2	.07	.00	178	100	22	290	35
15...	5.8	.1	.15	.00	75	48	10	114	10
JUNE									
01...	30	.1	.07	.00	192	120	40	304	20
15...	19	.1	.04	.00	184	110	29	268	20
JULY									
01...	22	.2	.15	.00	236	120	31	302	20
15...	31	.1	.04	.01	228	130	37	338	20
AUG.									
01...	26	.2	.02	.00	208	120	33	311	30
15...	36	.0	18	.00	236	140	51	324	30
SEP.									
01...	64	.0	.40	.00	370	160	94	426	40
15...	26	.1	.32	.01	212	120	37	280	20

02019500 JAMES RIVER AT BUCHANAN, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	480	320	165	126	149	185	180	290	300	290	355	410
2	490	225	185	118	165	190	187	300	240	260	340	400
3	450	195	168	130	170	195	190	300	94	271	480	410
4	250	195	199	136	185	195	193	280	110	281	298	400
5	270	215	220	139	190	207	112	290	130	280	320	390
6	260	248	180	138	185	211	115	280	162	310	250	350
7	280	275	135	146	205	225	126	265	175	308	270	260
8	290	260	144	153	210	195	142	260	191	320	280	320
9	345	250	151	160	216	190	153	270	205	290	275	370
10	370	299	150	154	217	185	163	220	220	295	290	320
11	375	290	136	106	220	193	165	170	225	300	280	310
12	400	285	144	102	230	178	172	175	237	320	290	330
13	400	310	157	108	247	107	190	---	250	350	310	330
14	400	310	177	138	250	110	195	102	255	348	340	340
15	410	340	185	138	250	124	204	114	278	350	345	280
16	410	340	180	150	245	130	211	130	279	370	320	290
17	415	335	182	160	249	140	213	140	300	370	340	290
18	435	335	189	165	245	149	220	163	300	375	360	290
19	450	360	187	180	250	160	235	165	290	400	345	320
20	500	350	199	195	235	167	244	185	280	430	350	300
21	510	380	165	190	235	170	240	193	300	430	300	340
22	505	360	102	155	230	110	250	200	325	430	370	330
23	510	370	108	136	210	116	245	210	325	450	340	310
24	515	380	124	142	146	132	250	215	290	450	310	310
25	510	385	130	140	140	146	260	235	270	460	350	340
26	510	399	128	116	151	154	260	225	300	395	320	390
27	515	370	88	114	165	163	260	270	325	252	345	380
28	510	379	96	116	175	177	265	260	300	310	410	370
29	510	193	110	120	---	190	250	280	325	410	440	390
30	500	150	120	136	---	189	270	270	300	390	425	350
31	370	---	130	144	---	192	---	280	---	370	430	---
MONTH	424	303	153	140	206	167	205	225	253	350	338	341

02019500 JAMES RIVER AT BUCHANAN, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974 (ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	12.5	9.5	7.0	9.0	7.0	9.0	21.5	21.5	23.5	25.5	25.0
2	22.5	12.0	8.0	6.0	9.0	9.0	13.0	19.0	20.0	23.5	25.5	25.0
3	19.5	15.0	7.0	5.5	8.5	11.5	14.5	19.5	19.5	25.5	25.0	23.0
4	20.5	12.5	9.0	6.5	8.0	13.5	14.5	18.5	20.5	26.5	24.0	23.0
5	21.0	11.5	10.5	6.5	5.0	13.0	13.5	16.5	20.5	25.5	24.0	20.5
6	20.0	10.5	10.0	7.0	4.5	13.0	12.0	16.0	20.0	26.5	23.0	19.5
7	18.5	8.0	9.0	6.5	6.0	13.5	11.0	15.5	21.5	26.0	24.0	20.0
8	18.5	8.0	5.5	6.0	4.5	14.5	9.5	15.5	21.5	26.0	23.5	19.5
9	16.5	8.0	6.5	6.0	4.5	15.5	9.5	16.0	22.0	27.0	23.5	20.0
10	20.5	8.0	5.5	7.0	4.0	15.5	10.0	18.0	24.0	26.5	23.5	20.0
11	20.0	7.0	5.0	8.5	4.0	13.5	11.0	18.0	24.5	26.5	23.5	24.0
12	20.5	6.5	4.5	8.0	5.5	9.5	13.0	17.0	23.0	26.0	23.5	25.0
13	20.0	7.0	4.5	5.5	6.0	7.0	15.5	---	23.0	25.5	25.0	23.5
14	19.5	7.0	5.0	5.0	7.0	7.0	16.0	15.0	22.0	26.5	25.0	23.0
15	19.5	7.5	4.0	5.0	7.0	8.0	16.5	17.0	22.0	26.5	25.5	21.0
16	17.0	7.5	4.0	7.0	5.5	8.5	16.0	19.5	21.0	26.0	26.0	21.5
17	16.5	10.0	3.0	8.5	6.5	8.0	14.5	20.0	21.0	26.0	26.0	20.0
18	15.5	9.0	1.5	9.0	6.5	8.0	14.5	21.0	20.0	25.5	26.0	20.0
19	14.5	10.0	0.0	9.0	6.0	9.5	14.5	21.5	21.0	25.5	24.5	21.0
20	14.5	10.0	2.0	9.5	8.0	9.0	15.0	21.0	21.0	26.0	25.0	21.5
21	14.0	9.5	4.5	10.0	8.0	8.5	16.0	21.0	22.0	24.5	25.5	20.5
22	14.0	10.0	3.0	9.0	9.0	8.5	16.5	21.0	23.0	25.0	25.5	20.5
23	15.0	10.0	4.0	10.0	9.0	9.0	17.0	22.0	21.0	22.0	24.5	18.0
24	15.0	11.5	4.0	8.0	7.0	8.5	15.5	21.5	21.0	23.5	25.0	19.0
25	15.0	9.5	4.5	8.5	6.0	8.0	15.0	21.0	22.0	24.5	25.5	19.0
26	15.5	9.0	6.0	9.0	5.0	8.5	16.0	20.0	21.0	20.0	25.5	19.5
27	14.5	14.0	7.0	9.5	5.0	9.5	17.0	20.0	20.0	22.0	25.5	18.5
28	14.0	13.5	7.0	9.5	5.0	11.5	18.5	20.0	19.0	24.5	26.0	18.5
29	14.0	11.0	6.5	9.5	---	10.5	20.0	20.0	19.0	26.0	26.0	18.5
30	12.0	14.0	6.5	9.5	---	10.0	21.5	21.0	21.5	26.5	25.5	17.0
31	12.0	---	6.5	9.0	---	9.5	---	22.0	---	26.5	25.0	---
MONTH	17.0	10.0	5.5	8.0	6.5	10.0	14.5	19.0	21.5	25.0	25.0	21.0

02035000 JAMES RIVER AT CARTERSVILLE, VA.

LOCATION.--Lat 37°40'15", long 78°05'10", Goochland County, at gaging station on left bank 200 ft (61 m) downstream from bridge on State Highway 45 between Pemberton and Cartersville, 1.8 mi (2.9 km) downstream from Willis River, and at mile 156.4.

DRAINAGE AREA.--6,257 mi² (16,206 km²).

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1947 to September 1948, January 1966 to September 1974.
Water temperatures: April 1968 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	1390	8.9	20	21	4.9	13	2.5	82	18
15...	2450	11	40	20	4.4	14	2.9	68	22
29...	1760	6.2	170	16	4.2	14	2.8	64	18
NOV.									
01...	4630	10	30	15	3.8	8.7	3.0	58	13
15...	2760	11	40	15	3.6	7.2	2.2	60	12
30...	3760	10	210	14	3.2	8.9	2.7	54	12
DEC.									
01...	7280	9.3	20	21	4.7	14	3.4	77	20
15...	7520	10	20	10	2.9	5.1	1.8	40	10
JAN.									
02...	21700	9.3	40	9.6	2.6	3.2	3.2	34	8.3
02...	21700	8.6	40	10	2.6	3.7	1.5	39	8.5
13...	7620	--	--	--	--	--	--	--	--
15...	14800	8.2	30	12	2.8	3.0	1.3	40	9.6
FEB.									
05...	7540	10	110	15	3.4	4.0	1.3	54	10
17...	5900	11	160	12	3.4	5.0	1.2	48	10
21...	6200	--	--	--	--	--	--	--	--
MAR.									
01...	7140	9.7	40	13	3.6	4.4	1.2	51	11
12...	6560	6.7	40	11	2.5	4.1	1.0	40	9.6
12...	6560	--	--	--	--	--	--	--	--
15...	15200	5.6	20	18	3.7	5.3	1.4	65	--
26...	11500	--	--	--	--	--	--	--	--
APR.									
02...	9120	9.3	0	14	3.1	4.7	1.3	49	12
10...	14270	--	--	--	--	--	--	--	--
15...	8620	9.4	0	13	3.0	3.9	1.1	50	11
22...	6360	6.4	90	12	2.8	4.4	1.8	50	9.4
MAY									
01...	4120	6.1	0	17	3.8	5.8	1.4	63	11
06...	4306	--	--	--	--	--	--	--	--
15...	26800	7.5	30	11	2.0	3.0	1.2	38	10
20...	6680	8.3	80	11	2.4	3.3	1.4	40	9.4
20...	9250	--	--	--	--	--	--	--	--
JUNE									
01...	4050	10	--	14	4.2	5.5	1.8	56	7.7
02...	3910	9.3	0	16	3.5	5.2	1.5	55	8.1
10...	5680	--	--	--	--	--	--	--	--
15...	3420	8.3	0	16	3.5	5.9	1.9	59	8.4
25...	3564	--	--	--	--	--	--	--	--
25...	3564	6.9	40	14	3.0	5.0	1.6	49	8.8
JULY									
08...	3545	--	--	--	--	--	--	--	--
15...	1820	8.6	20	19	4.5	7.2	2.1	75	12
22...	1300	--	--	--	--	--	--	--	--
22...	1300	--	--	--	--	--	--	--	--
AUG.									
01...	4000	11	10	20	4.7	9.3	2.2	74	17
06...	8800	--	--	--	--	--	--	--	--
15...	2840	11	--	17	3.7	6.2	1.9	58	13
19...	1820	--	--	--	--	--	--	--	--
19...	1820	--	--	--	--	--	--	--	--
SEP.									
01...	2840	--	--	--	--	--	--	--	--
09...	13280	--	--	--	--	--	--	--	--
15...	4560	12	--	17	4.2	5.5	1.7	66	14
23...	1020	--	--	--	--	--	--	--	--
23...	1020	1.5	20	15	4.1	6.6	2.0	61	12

02035000 JAMES RIVER AT CARTERSVILLE, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 260 micromhos Nov. 5, 6; minimum daily, 50 micromhos Sept. 8.
Water temperatures: Maximum, 27.0°C July 15, 16, 22; minimum, 2.0°C Dec. 21, 24.

Period of record:
Specific conductance (1968-74): Maximum daily, 459 micromhos Oct. 8, 1970; minimum daily, 50 micromhos Sept. 8, 1974.
Water temperatures: Maximum, 36.0°C July 2, 1968; minimum, freezing point on several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	15	.2	.02	.00	133	72	6	215	25
15...	18	.2	.50	.01	143	68	12	220	20
29...	17	.2	.10	.12	121	58	5	190	30
NOV.									
01...	8.4	.1	.80	.07	101	53	5	155	45
15...	8.2	.1	.09	.00	97	52	4	150	25
30...	9.5	.1	.30	.26	94	48	4	144	45
DEC.									
01...	17	.1	.70	.00	138	72	9	230	35
15...	3.9	.1	.20	.00	78	37	4	108	30
JAN.									
02...	4.2	.1	.50	.18	80	34	6	96	45
02...	3.3	.1	.40	.04	59	36	4	96	25
13...	--	--	--	--	--	--	--	75	--
15...	3.5	.2	.16	.00	73	42	8	102	20
FEB.									
05...	5.2	.1	.47	.00	83	52	7	114	15
17...	5.8	.1	.32	.01	79	44	4	112	32
21...	--	--	--	--	--	--	--	110	--
MAR.									
01...	4.5	.1	.06	.00	78	48	6	118	25
12...	5.6	.1	.22	.04	66	38	5	140	30
12...	--	--	--	--	--	--	--	140	--
15...	--	--	.27	.00	--	60	6	157	25
26...	--	--	--	--	70	--	--	130	--
APR.									
02...	5.2	.1	.19	.00	81	48	8	120	18
10...	--	--	--	--	65	--	--	100	--
15...	4.4	.1	.16	.00	78	45	4	116	17
22...	4.6	.2	.07	.00	69	42	0	110	25
MAY									
01...	7.3	.1	.01	.00	94	58	6	146	15
06...	--	--	--	--	82	--	--	140	--
15...	2.2	.2	.22	.06	67	36	4	87	33
20...	3.6	.1	.27	.01	70	38	4	125	40
20...	--	--	--	--	70	--	--	125	--
JUNE									
01...	7.7	.1	.44	.00	116	52	6	130	10
02...	5.9	.2	.00	.00	75	54	9	126	7
10...	--	--	--	--	62	--	--	115	--
15...	5.0	.1	.30	.00	74	54	6	135	5
25...	--	--	--	--	94	--	--	118	--
25...	7.6	.2	--	--	97	47	7	118	--
JULY									
08...	--	--	--	--	110	--	--	170	--
15...	11	.1	.07	.01	115	66	4	171	10
22...	--	--	--	--	134	--	--	193	--
22...	--	--	--	--	--	--	--	129	--
AUG.									
01...	12	.0	.27	.00	140	69	9	200	7
06...	--	--	--	--	85	--	--	129	--
15...	7.9	.1	.17	.00	134	58	10	152	7
19...	--	--	--	--	104	--	--	165	--
19...	--	--	--	--	--	--	--	165	--
SEP.									
01...	--	--	--	--	--	--	--	150	--
09...	--	--	--	--	86	--	--	95	--
15...	4.8	.0	.29	.01	56	60	6	90	7
23...	--	--	--	--	86	--	--	145	--
23...	8.8	.3	--	--	94	54	4	156	--

02035000 JAMES RIVER AT CARTERSVILLE, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	215	155	230	---	---	118	---	146	---	125	190	150
2	148	163	220	96	---	112	120	150	131	145	180	120
3	136	220	200	104	---	116	---	132	130	140	180	60
4	168	---	175	96	---	120	---	128	175	---	---	85
5	215	260	165	---	114	120	---	---	169	189	140	100
6	---	260	130	106	116	122	---	134	110	189	90	60
7	185	225	125	116	114	124	---	134	104	175	95	65
8	185	200	125	118	---	130	---	132	110	138	115	50
9	169	165	124	114	104	124	---	130	115	---	130	---
10	200	155	104	116	110	134	---	104	120	---	---	---
11	205	148	100	118	---	138	---	94	120	---	---	90
12	210	146	92	138	---	132	98	104	129	184	125	100
13	205	146	114	139	---	---	120	136	137	184	145	120
14	220	146	112	110	---	130	---	155	140	175	135	110
15	220	150	108	102	---	157	116	87	141	180	140	90
16	200	160	106	104	---	---	118	---	139	170	130	90
17	175	157	100	110	112	---	120	---	140	180	150	100
18	165	166	95	114	110	100	120	94	139	185	140	80
19	165	165	90	124	116	108	126	100	145	190	145	90
20	160	163	85	---	119	---	124	88	155	190	150	90
21	160	158	84	---	120	---	130	95	158	---	145	100
22	165	157	83	96	122	---	134	98	163	200	130	120
23	163	160	---	106	122	---	134	108	140	200	90	120
24	165	164	69	120	128	---	138	116	139	188	110	100
25	175	---	---	114	164	---	138	120	140	188	120	110
26	180	165	88	106	155	130	142	126	140	121	110	90
27	185	163	88	---	157	---	142	126	150	110	120	95
28	---	165	118	---	138	106	146	126	135	148	100	100
29	175	159	86	---	---	112	153	124	139	190	110	90
30	134	160	---	---	---	---	149	132	---	160	120	95
31	132	---	---	---	---	---	---	132	---	170	140	---
MONTH	179	171	119	---	---	---	---	120	138	170	131	95

02035000 JAMES RIVER AT CARTERSVILLE, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974 (ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	13.0	9.5	---	---	7.5	---	21.0	---	22.0	25.0	---
2	20.0	13.0	9.0	6.0	---	8.0	14.0	19.0	20.0	24.0	25.0	---
3	19.0	13.0	8.5	5.5	---	10.5	---	18.5	19.5	26.5	25.0	---
4	20.5	---	8.0	5.0	---	11.0	---	18.5	20.5	---	---	22.0
5	19.0	11.5	8.0	---	6.5	13.0	---	---	20.0	26.0	22.5	22.5
6	---	10.0	7.5	5.5	6.0	12.0	---	15.5	20.5	24.0	22.5	22.0
7	19.5	9.0	7.5	6.0	5.5	14.0	---	15.5	20.0	24.0	22.0	18.5
8	19.0	9.0	7.0	6.5	---	14.0	---	15.5	20.0	25.0	22.0	19.0
9	19.5	9.0	7.0	6.0	3.0	13.5	---	15.5	22.5	---	23.0	---
10	19.0	8.0	7.0	6.5	3.0	14.0	---	15.5	24.5	---	---	---
11	19.0	9.0	5.5	9.0	---	11.5	---	17.0	25.0	---	---	21.5
12	19.0	7.5	4.5	7.0	---	13.0	12.0	18.0	24.5	26.0	22.0	23.0
13	18.5	8.0	4.5	6.0	---	---	15.5	17.0	24.0	25.0	24.0	24.5
14	19.5	9.5	5.5	5.0	---	8.0	---	19.0	23.0	26.0	25.0	23.5
15	18.5	11.0	5.0	5.5	---	9.0	17.0	18.0	23.0	27.0	25.0	22.0
16	19.0	11.5	4.5	6.0	---	---	15.0	---	23.0	27.0	26.5	22.0
17	16.5	10.5	4.0	7.0	5.0	---	15.5	---	23.0	26.0	25.0	21.5
18	15.0	9.0	3.0	6.5	4.5	9.0	14.0	21.5	21.0	26.0	25.0	22.0
19	15.0	9.5	3.0	10.0	4.5	10.5	15.5	21.5	23.0	26.5	26.0	22.5
20	15.5	9.5	2.5	---	7.0	---	15.5	20.5	25.0	26.0	24.5	22.5
21	15.5	9.0	2.0	---	6.5	---	17.0	20.5	24.0	---	24.0	21.0
22	15.0	10.5	2.5	9.0	9.5	---	10.0	19.5	25.0	27.0	24.5	21.0
23	15.0	10.0	---	11.0	8.5	---	14.5	19.0	24.0	23.5	24.0	19.0
24	14.5	12.0	2.0	6.5	8.0	---	16.5	21.5	22.5	23.0	25.0	16.5
25	14.5	---	---	8.0	6.5	---	14.5	22.0	22.0	24.0	25.5	17.5
26	15.0	12.5	5.0	8.5	6.0	7.0	15.0	21.0	22.0	22.5	25.0	17.0
27	14.0	14.0	7.0	---	6.0	---	15.5	19.0	22.0	23.0	25.0	19.0
28	---	14.0	8.0	---	6.0	10.5	18.5	20.0	20.0	24.5	23.0	18.0
29	15.5	12.0	7.0	---	---	11.0	20.0	21.0	19.5	25.5	24.5	20.0
30	13.0	10.0	---	---	---	---	20.5	20.5	---	25.0	25.5	18.0
31	12.5	---	---	---	---	---	---	22.0	---	25.0	26.0	---
MONTH	17.0	10.5	5.5	---	---	---	---	19.0	22.5	25.0	24.5	20.5

02038850 HOLIDAY CREEK NEAR ANDERSONVILLE, VA.
(Hydrologic bench-mark station)

LOCATION.--Lat 37°24'55", long 78°38'10", Appomattox County, at gaging station on right bank 350 ft (110 m) downstream from culvert (revised) on State Highway 614, 1.0 mi (1.6 km) upstream from Holiday Lake, and 5.2 mi (8.4 km) southwest of Andersonville.

DRAINAGE AREA.--8.53 mi^2 (22.09 km^2).

PERIOD OF RECORD.--Chemical analyses: March 1967 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT. 31...	3.0	13	180	2.4	1.1	3.9	2.2	17	.8
DEC. 05...	64	8.5	210	2.2	1.0	3.8	1.8	13	4.2
FEB. 21...	12	10	--	1.7	1.1	2.5	.7	12	5.4
APR. 22...	7.6	9.9	160	2.0	1.0	2.3	1.0	15	3.5
JUNE 18...	6.8	3.8	--	1.9	1.1	2.9	.4	15	2.4
AUG. 13...	4.4	13	--	2.2	1.0	3.2	.7	20	2.9

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)
OCT. 31...	3.2	.2	.04	.11	46	10	53	6.5	12.0
DEC. 05...	3.6	.3	.10	.26	44	10	37	6.4	11.0
FEB. 21...	2.2	.1	.04	.01	33	8	40	6.0	6.5
APR. 22...	1.7	.1	.03	.09	38	9	50	6.4	18.0
JUNE 18...	1.5	.3	.03	.01	26	9	37	5.0	17.5
AUG. 13...	1.5	.1	.00	.03	45	10	36	6.8	21.0

02042500 CHICKAHOMINY RIVER NEAR PROVIDENCE FORGE, VA.

LOCATION.--Lat 37°26'10", long 77°03'40", New Kent County, at gaging station on left bank 100 ft (30 m) downstream from bridge on State Highway 618, 1.1 mi (1.8 km) southwest of Providence Forge, and 1.7 mi (2.7 km) downstream from Schiminoe Creek.

DRAINAGE AREA.--248 mi² (642 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1970, October 1971 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT. 09...	182	11	280	7.9	2.0	10	3.0	7	25	14
31...	66	7.0	330	6.7	1.6	7.4	3.2	25	10	9.3
DEC. 12...	340	7.6	260	5.1	1.5	6.8	4.0	8	16	9.4
JAN. 24...	312	3.9	160	5.3	1.8	7.4	2.2	11	13	12
MAR. 07...	186	1.2	80	6.2	1.5	9.4	2.1	20	8.7	13
APR. 19...	273	.7	540	5.4	1.6	8.5	1.9	20	7.9	9.5
JUNE 05...	121	8.2	0	8.0	1.2	6.7	1.5	27	5.5	8.9
JULY 15...	7.0	4.4	240	8.0	2.3	7.3	2.1	41	3.6	9.0
AUG. 22...	60	8.7	--	8.5	1.7	6.5	2.0	33	6.8	10

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT. 09...	.1	.02	.08	96	28	22	128	17.0	35
31...	.2	.07	.08	81	23	2	95	11.5	45
DEC. 12...	.1	.09	.06	67	19	12	88	2.5	45
JAN. 24...	.1	.06	.02	69	20	12	88	9.0	45
MAR. 07...	.1	.08	.02	65	22	5	102	14.5	45
APR. 19...	.3	.11	.20	72	20	4	76	14.5	90
JUNE 05...	.8	.23	.04	55	25	3	84	19.0	40
JULY 15...	.4	.01	.01	84	29	0	103	27.5	20
AUG. 22...	.1	.02	.01	116	28	1	89	23.0	50

02052000 MEHERRIN RIVER AT EMPORIA, VA.

LOCATION.--Lat 36°41'24", long 77°32'27", Emporia City, at gaging station on left bank at downstream side of bridge on U.S. Highway 301 and 1.2 mi (1.9 km) upstream from Falling Run.

DRAINAGE AREA.--747 mi² (1,935 km²).

PERIOD OF RECORD.--Chemical analyses: March 1967 to September 1974.
Water temperatures: April 1968 to September 1974.

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 132 micromhos Jan. 5; minimum daily, 53 micromhos Mar. 4, 29, 30, 31.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
17...	119	20	150	5.3	2.2	7.1	2.2	39	3.3
NOV.									
01...	204	20	100	5.5	2.5	6.3	2.2	38	2.5
15...	169	17	120	5.2	1.7	7.0	2.6	37	3.3
DEC.									
01...	199	18	140	5.0	2.2	6.1	2.0	36	2.7
15...	554	16	130	4.0	1.8	5.0	1.9	21	5.9
JAN.									
01...	1270	16	60	4.2	2.4	4.8	1.7	19	6.6
04...	1160	13	110	14	2.3	4.6	1.7	25	24
05...	2110	13	60	13	2.4	5.0	2.1	29	21
15...	598	16	110	12	2.3	5.2	1.6	31	16
31...	1300	13	310	14	1.9	4.7	1.5	23	26
FEB.									
01...	986	14	10	3.8	1.5	4.8	1.3	18	7.3
15...	830	18	20	4.2	1.8	4.9	1.3	24	5.2
28...	700	13	90	3.9	1.7	5.6	1.2	19	8.1
MAR.									
14...	934	15	80	4.7	2.1	5.4	1.3	29	4.6
APR.									
01...	2920	16	70	4.7	2.2	5.2	1.6	30	5.8
10...	2740	15	30	14	2.4	6.0	1.9	38	17
15...	856	14	120	4.7	2.1	5.4	1.4	26	6.8
MAY									
15...	700	14	50	3.4	2.1	4.8	1.7	30	3.9
JUNE									
01...	436	14	100	4.9	2.1	4.5	2.0	27	3.9
15...	229	17	150	4.3	2.6	5.9	4.0	34	2.8
JULY									
01...	318	15	310	5.7	2.7	5.0	1.9	37	3.7
15...	135	14	150	6.3	1.9	4.6	2.0	31	3.6
AUG.									
15...	188	14	380	21	2.0	4.5	2.2	39	25
SEP.									
01...	215	17	--	6.5	2.2	5.7	2.1	39	3.4
15...	388	14	270	19	1.8	3.9	1.9	30	24

02052000 MEHERRIN RIVER AT EMPORIA, VA.--Continued

EXTREMES.--1973-74--Continued
Water temperatures: Maximum, 29.0°C on several days during summer months; minimum, 7.0°C Dec. 12.

Period of record:
Specific conductance (1968-71, 1973-74): Maximum daily, 153 micromhos Sept. 29, 1968; minimum daily, 30 micromhos Oct. 6, 1972.
Water temperatures (1968-71, 1973-74): Maximum, 35.0°C July 14, 21, 22, 26, 1969; minimum, 1.0°C Nov. 29, Dec. 3, 1970.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
17...	3.9	.2	.02	.00	67	22	0	84	20
NOV.									
01...	5.1	.1	.00	.00	64	24	0	80	10
15...	5.6	.1	.02	.00	74	20	0	94	17
DEC.									
01...	4.8	.1	.04	.01	59	22	0	76	30
15...	4.9	.1	.10	.01	57	18	0	66	25
JAN.									
01...	5.0	.1	.03	.00	61	20	5	57	30
04...	9.9	.1	.17	.02	87	44	24	130	16
05...	9.6	.1	.13	.08	94	42	18	132	20
15...	9.0	.1	.20	.00	80	40	14	114	17
31...	9.0	.1	.05	.00	49	43	24	128	25
FEB.									
01...	3.8	.0	.02	.01	55	16	1	56	40
15...	4.1	.1	.02	.00	52	18	0	62	30
28...	3.8	.2	.10	.13	66	16	1	54	70
MAR.									
14...	5.0	.1	.05	.00	73	20	0	66	35
APR.									
01...	4.1	.1	.10	.00	75	20	0	57	27
10...	11	.1	.02	.06	104	45	14	130	15
15...	3.9	.1	.08	.05	69	20	0	65	45
MAY									
15...	8.2	.3	.07	.00	58	17	0	71	10
JUNE									
01...	5.0	.1	.05	.00	70	21	0	66	30
15...	7.7	.1	.02	.00	58	21	0	75	8
JULY									
01...	5.5	.1	.05	.00	50	25	0	79	7
15...	4.7	.1	.09	.01	88	24	0	69	30
AUG.									
15...	12	.0	.37	.00	128	61	29	152	5
SEP.									
01...	4.1	.0	.15	.01	75	25	0	81	30
15...	12	.1	.16	.01	100	55	30	120	2

02052000 MEHERRIN RIVER AT EMPORIA, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	80	76	67	56	59	67	72	60	71	95	---
2	---	78	66	---	60	59	68	72	75	76	100	---
3	---	80	82	72	64	59	66	66	60	---	90	---
4	---	82	66	130	60	53	68	67	65	71	110	---
5	---	83	75	132	56	58	70	70	60	70	90	---
6	---	83	86	66	55	54	65	68	70	75	95	---
7	---	85	80	64	60	60	72	70	60	74	90	---
8	---	82	54	59	58	58	72	72	75	77	90	---
9	---	81	78	69	58	54	69	65	---	70	95	---
10	---	82	66	116	66	55	130	66	75	69	100	---
11	---	83	64	117	69	57	70	68	75	70	105	---
12	---	82	67	61	59	66	60	72	75	66	120	---
13	---	80	68	71	---	66	70	70	65	65	118	---
14	---	84	67	61	62	66	67	71	60	65	116	---
15	---	84	66	114	62	58	65	70	80	65	100	---
16	---	79	75	68	63	67	64	69	75	69	95	---
17	84	80	64	63	61	61	63	68	75	70	90	---
18	84	80	72	62	55	60	64	67	75	80	85	---
19	84	79	80	65	58	60	65	65	80	74	80	---
20	86	79	66	66	66	69	67	73	75	71	80	---
21	78	80	65	65	60	65	67	72	80	75	80	---
22	79	80	70	61	61	60	67	72	75	74	75	---
23	84	78	---	70	68	62	67	65	---	80	75	---
24	84	80	68	68	68	63	74	71	75	80	70	---
25	84	78	70	68	57	62	68	74	70	79	75	---
26	82	79	67	72	58	63	65	72	---	80	80	---
27	81	76	---	61	59	64	67	70	73	120	85	---
28	80	82	---	62	54	64	66	71	71	80	90	---
29	78	72	---	62	---	53	63	72	72	100	85	---
30	82	78	---	61	---	53	71	80	75	---	80	---
31	81	---	70	128	---	53	---	75	---	---	75	---
MONTH	---	80	70	77	60	60	69	70	71	76	91	---

02052000 MEHERRIN RIVER AT EMPORIA, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	24.5	16.5	15.5	15.5	18.0	21.5	21.0	23.0	24.0	29.0	26.5
2	---	18.0	11.0	12.0	12.0	18.0	21.0	20.5	24.0	29.0	29.0	27.0
3	---	18.0	15.5	12.0	15.0	18.5	24.5	20.5	25.0	---	28.0	26.5
4	---	15.5	15.5	16.0	11.0	15.5	21.0	21.0	22.0	28.0	29.0	26.5
5	---	15.5	15.5	15.5	15.5	16.5	26.0	21.5	22.0	28.0	27.5	26.0
6	---	18.0	15.5	15.5	16.5	15.5	24.5	20.5	20.0	28.0	26.0	26.0
7	---	19.0	13.5	23.0	15.5	18.0	24.0	21.5	18.5	28.0	27.0	28.0
8	---	18.0	13.0	20.0	15.5	16.5	23.5	20.0	19.0	28.0	27.0	26.5
9	---	18.0	14.5	20.0	16.5	15.5	22.0	19.5	---	29.0	27.0	26.5
10	---	20.0	15.0	15.5	15.5	16.5	24.0	20.0	19.5	29.0	27.0	27.0
11	---	13.5	10.0	15.0	15.5	16.5	23.5	18.5	23.5	28.0	27.5	27.0
12	---	---	7.0	15.5	15.0	15.5	23.0	17.5	21.5	28.0	27.0	27.0
13	---	18.0	8.0	15.5	---	13.5	20.0	20.0	18.0	28.5	28.0	29.0
14	---	17.0	9.0	15.5	14.5	16.5	23.5	21.0	23.0	29.0	28.0	27.0
15	---	15.5	11.0	16.5	12.0	20.0	14.5	20.0	19.5	28.5	27.0	27.0
16	---	20.0	12.0	15.5	11.5	21.0	15.5	21.0	20.0	28.5	27.5	26.5
17	19.0	18.0	13.0	15.5	11.5	18.0	21.0	20.0	19.0	28.0	27.0	26.5
18	19.0	14.5	13.5	21.0	16.0	10.0	18.0	21.0	20.5	28.5	28.0	26.5
19	18.0	18.0	14.5	20.5	15.5	15.5	15.5	18.0	21.0	28.0	27.0	26.5
20	24.5	15.5	15.5	15.5	13.5	18.0	20.0	22.0	17.0	28.5	27.0	26.5
21	18.0	15.5	15.0	16.5	15.5	17.0	20.0	15.5	16.5	27.0	27.0	26.5
22	18.0	15.5	15.5	17.0	15.0	18.0	21.0	17.0	18.5	28.0	27.0	25.5
23	18.0	18.0	18.0	15.0	15.0	17.0	16.0	27.0	---	28.0	27.0	26.0
24	18.0	15.5	15.0	16.0	16.5	19.0	17.0	24.5	20.5	28.0	27.0	26.0
25	18.0	15.0	21.0	18.0	14.5	18.0	20.5	15.5	15.5	28.0	28.0	26.5
26	18.0	19.0	13.5	16.5	16.5	18.0	21.5	24.5	---	27.0	27.0	26.5
27	18.0	13.5	15.5	15.5	15.5	16.5	20.5	22.0	29.0	28.0	28.0	26.5
28	19.0	15.5	15.0	15.0	15.5	18.0	19.5	21.0	23.5	27.0	28.0	26.5
29	18.0	18.0	15.0	15.5	---	15.5	20.5	20.5	21.0	28.0	27.0	22.0
30	18.0	15.5	15.0	15.0	---	18.0	20.5	19.0	21.0	---	27.0	27.0
31	18.0	---	15.5	15.5	---	---	---	21.0	---	---	29.0	---
MONTH	---	17.0	14.0	16.5	14.5	17.0	21.0	20.5	21.0	28.0	27.5	26.5

02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA.

LOCATION.--Lat 37°06'16", long 79°17'44", Pittsylvania County, at gaging station on right bank 12 ft (4 m) upstream from bridge on U.S. Highway 29, 0.3 mi (0.5 km) south of Altavista, 0.3 mi (0.5 km) downstream from Sycamore Creek, 3.5 mi (5.6 km) upstream from Big Otter River, and at mile 286.5.

DRAINAGE AREA.--1,789 mi² (4,634 km²).

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, February 1953 to September 1956, March 1967 to September 1974.
Water temperatures: October 1950 to September 1951, February 1953 to September 1956, April 1968 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	650	8.4	30	14	5.1	4.4	2.5	65	10
15...	1000	7.6	20	15	5.5	4.6	2.2	68	8.7
NOV.									
01...	4320	8.9	10	14	5.3	4.4	2.2	67	9.3
15...	191	12	40	14	3.8	5.8	2.4	65	6.6
DEC.									
01...	173	11	60	13	3.5	4.4	2.4	61	5.2
15...	281	10	10	9.8	4.2	10	2.0	59	8.9
JAN.									
01...	1060	7.6	10	11	4.6	4.0	2.1	51	8.5
15...	5550	7.0	10	12	4.9	4.2	2.0	56	8.1
FEB.									
01...	9730	15	20	12	3.7	4.3	1.9	51	8.9
15...	7760	8.4	20	14	5.1	5.2	2.0	63	9.6
MAR.									
01...	5480	7.9	10	13	4.8	4.8	2.0	61	8.1
15...	306	9.2	20	12	3.8	5.0	2.0	54	7.1
APR.									
01...	995	6.6	0	14	5.2	4.5	1.9	62	11
15...	1060	12	0	13	3.8	4.7	2.0	47	11
MAY									
01...	1050	7.1	10	12	5.0	5.0	2.4	58	9.8
15...	1020	7.3	40	12	5.3	4.4	2.2	61	9.8
JUNE									
01...	374	13	0	16	4.2	5.8	2.5	64	7.3
15...	306	10	0	16	5.0	4.8	2.3	65	7.9
JULY									
01...	950	8.3	30	15	5.9	5.1	2.3	71	7.8
15...	1480	7.3	10	14	5.8	9.3	2.4	71	9.3
AUG.									
01...	3110	7.2	10	15	6.0	5.2	2.3	71	10
15...	3200	7.4	50	13	6.0	4.8	3.0	66	9.8
SEP.									
01...	224	15	--	14	4.0	4.2	3.7	63	6.5
15...	254	14	--	13	4.2	4.2	2.4	65	9.3

02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA.--Continued

PERIOD OF RECORD.--Continued
Sediment records: February 1953 to September 1956.

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 166 micromhos July 14; minimum daily, 95 micromhos July 28.
Water temperatures: Maximum, 27.0°C Aug. 30; minimum, 4.0°C Dec. 23.

Period of record:
Specific conductance (1968-74): Maximum daily, 580 micromhos Jan. 17, 1969; minimum daily, 54 micromhos Aug. 18, 1955.
Water temperatures: Maximum, 30.0°C Aug. 10, 1951; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	4.9	.2	.20	.00	87	56	2	140	20
15...	6.0	.1	.00	.00	87	60	4	144	10
NOV.									
01...	5.9	.1	.30	.07	84	57	2	142	23
15...	6.5	.1	.07	.00	89	50	0	136	15
DEC.									
01...	4.6	.1	.30	.00	82	47	0	124	7
15...	6.5	.1	.20	.03	89	42	0	136	30
JAN.									
01...	5.6	.1	.27	.00	82	46	4	121	15
15...	5.8	.1	.22	.00	86	50	4	128	13
FEB.									
01...	5.9	.2	.45	.00	90	45	3	118	10
15...	7.0	.2	.45	.00	84	56	4	140	20
MAR.									
01...	6.5	.2	.29	.00	79	52	2	132	20
15...	5.0	.2	.17	.01	76	46	1	120	18
APR.									
01...	6.8	.2	.34	.00	89	56	6	136	18
15...	.6	.1	.21	.00	103	48	10	132	15
MAY									
01...	6.1	.1	.34	.00	88	50	3	132	23
15...	6.2	.2	.25	.00	84	52	2	134	10
JUNE									
01...	5.9	.1	.46	.00	80	57	5	146	5
15...	5.5	.1	.32	.00	80	61	7	143	5
JULY									
01...	7.9	.3	.26	.00	84	62	4	152	3
15...	7.7	.2	.22	.04	108	59	1	152	4
AUG.									
01...	6.3	.4	.43	.00	92	62	4	155	5
15...	5.7	.2	.33	.00	92	57	3	142	3
SEP.									
01...	4.8	.1	.36	.00	100	51	0	138	30
15...	3.4	.5	.34	.01	94	50	0	110	5

02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	142	124	121	118	132	136	132	150	159	116	151
2	144	142	118	119	142	116	138	130	150	155	125	130
3	142	146	122	114	140	116	126	130	150	156	126	135
4	144	146	124	112	122	132	126	138	150	160	127	140
5	130	140	136	126	146	130	128	136	151	130	130	141
6	130	144	140	124	146	130	116	132	145	131	149	150
7	130	144	112	124	144	129	124	132	150	135	150	---
8	144	144	110	126	144	130	116	130	157	161	145	130
9	150	144	109	129	118	116	118	130	155	158	148	140
10	146	120	138	130	120	115	122	130	155	150	130	130
11	146	120	136	139	144	114	104	124	155	148	135	130
12	144	122	137	130	142	114	106	122	157	155	147	150
13	140	132	136	124	144	108	114	128	153	160	151	140
14	128	130	138	126	140	118	134	134	151	166	149	130
15	144	136	136	128	140	120	132	134	150	160	150	110
16	144	130	134	124	112	108	132	132	150	158	130	120
17	146	128	136	128	110	106	126	132	150	160	160	120
18	130	130	134	126	143	122	120	138	155	158	140	110
19	130	128	128	116	149	124	118	134	151	160	130	140
20	143	128	120	116	150	118	119	134	155	150	145	115
21	143	136	115	122	148	122	118	136	135	150	151	130
22	144	128	122	122	140	130	128	142	135	159	148	100
23	142	122	136	126	144	108	122	142	133	160	130	110
24	144	122	136	124	112	106	126	134	152	160	130	110
25	138	118	116	120	148	122	122	132	130	156	130	130
26	146	128	118	120	138	122	120	131	132	156	151	130
27	128	126	110	116	137	137	124	131	151	100	149	120
28	128	134	108	130	134	133	122	144	150	95	150	140
29	142	135	108	132	---	137	132	142	153	150	145	120
30	142	140	116	115	---	120	132	142	153	158	120	120
31	142	---	114	114	---	120	---	138	---	160	135	---
MONTH	140	133	125	123	136	121	123	134	149	151	139	128

02060500 ROANOKE (STAUNTON) RIVER AT ALTAVISTA, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	17.0	11.0	7.0	9.0	10.0	11.5	17.0	19.0	22.0	23.0	25.0
2	20.0	17.0	9.0	7.0	9.0	12.0	11.0	17.0	20.0	23.0	23.0	25.0
3	19.0	15.0	10.0	8.0	8.0	13.0	12.0	17.5	19.5	24.0	23.0	26.0
4	19.0	15.0	12.0	7.0	9.5	12.0	12.0	17.0	19.0	24.0	26.0	23.0
5	19.0	15.0	12.0	7.0	9.0	12.5	12.0	18.0	19.0	24.0	26.0	22.0
6	19.0	15.0	12.0	6.0	9.0	13.0	13.0	17.0	20.0	25.0	23.0	22.0
7	19.0	14.0	10.0	7.0	9.0	14.0	14.0	18.0	20.0	25.0	21.0	---
8	19.5	14.5	10.0	7.0	8.5	14.0	13.0	18.0	21.0	22.0	23.0	22.0
9	20.0	12.0	8.0	8.0	7.0	18.0	14.0	17.0	21.0	22.0	23.0	22.0
10	20.5	8.0	11.0	8.5	7.0	18.0	12.5	17.0	20.0	22.0	24.0	22.0
11	20.5	9.0	10.0	8.0	8.0	15.0	15.0	17.0	21.0	23.0	26.0	23.0
12	19.0	10.0	8.0	8.0	8.5	14.0	16.0	17.0	20.0	24.0	26.0	23.0
13	21.0	12.0	10.0	7.0	9.0	12.0	14.0	17.0	19.0	25.0	22.5	23.0
14	21.0	13.0	10.0	8.0	9.0	11.0	17.0	17.0	20.0	26.0	22.5	23.0
15	20.0	15.0	10.0	8.0	8.0	11.0	17.0	15.0	20.0	22.0	23.0	25.0
16	20.0	9.0	9.0	9.0	7.0	13.0	14.0	18.0	20.0	22.5	23.0	25.0
17	19.0	10.0	9.0	8.0	8.0	13.0	13.0	19.0	19.5	23.0	23.0	25.0
18	19.0	10.0	8.0	8.0	8.0	12.0	14.5	20.0	20.0	23.0	26.5	22.0
19	19.0	12.0	11.0	8.0	9.0	12.0	16.0	20.0	20.0	23.0	22.5	22.0
20	18.0	12.0	11.0	7.0	9.0	12.0	17.5	18.0	20.5	25.0	23.5	22.0
21	18.0	11.0	11.0	8.0	8.0	11.0	18.0	18.0	20.5	26.0	23.0	22.0
22	18.0	11.0	10.0	9.0	8.0	10.0	17.0	18.0	---	22.0	23.0	23.0
23	18.0	11.0	4.0	9.0	8.5	12.0	16.0	17.0	23.0	22.0	23.0	23.0
24	18.0	12.0	8.0	9.0	6.0	13.0	16.0	18.0	20.0	22.0	26.0	23.0
25	18.0	13.0	8.0	8.0	8.0	11.0	16.0	20.0	19.0	23.0	26.5	20.0
26	17.0	13.0	5.0	8.0	8.0	11.5	16.0	21.0	20.0	22.0	24.0	20.0
27	15.0	12.0	8.0	9.0	8.0	12.0	17.0	20.0	20.0	23.0	25.0	20.0
28	15.0	14.0	8.0	8.5	9.0	12.0	17.0	20.0	18.0	24.0	24.5	19.0
29	16.0	14.0	8.0	9.0	---	13.0	16.0	19.0	21.0	22.0	25.0	20.0
30	16.5	13.0	7.0	9.0	---	15.0	16.0	20.0	22.5	22.0	27.0	19.0
31	17.0	---	6.0	9.5	---	15.0	---	20.0	---	23.0	25.0	---
MONTH	18.5	12.5	9.0	8.0	8.5	13.0	15.0	18.0	20.0	23.0	24.0	22.5

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA.

LOCATION.--Lat 36°54'54", long 78°44'28", Halifax County, at gaging station on right bank 14 ft (4 m) downstream from bridge on State Highway 746, 2.8 mi (4.5 km) northwest of Randolph, 3.6 mi (5.8 km) upstream from Roanoke Creek, and at mile 227.3.

DRAINAGE AREA.--2,977 mi² (7,710 km²).

PERIOD OF RECORD.--Chemical analyses: April 1929 to March 1930, October 1950 to September 1956, February 1967 to September 1974.
Water temperatures: October 1950 to September 1956, April 1968 to September 1974.
Sediment records: January 1954 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	626	12	0	11	4.4	5.3	2.2	57	7.9
15...	690	12	30	10	3.8	5.4	2.1	54	6.6
NOV.									
01...	1480	9.6	40	11	4.5	5.1	2.6	57	8.1
15...	1820	10	20	11	4.2	5.0	2.1	56	6.4
DEC.									
01...	1830	9.9	30	10	4.0	5.9	2.3	49	6.8
15...	3010	8.2	30	11	4.3	5.0	2.2	54	6.6
JAN.									
01...	8520	10	30	9.0	3.6	4.1	1.9	42	7.3
15...	4490	7.8	20	6.6	2.7	3.4	2.4	26	11
FEB.									
01...	6340	8.7	80	11	4.2	6.1	2.6	50	11
15...	4450	11	40	9.7	4.0	5.3	2.2	48	8.5
MAR.									
01...	3310	10	60	9.8	3.8	5.1	2.0	48	7.7
15...	2780	10	40	9.5	3.6	5.0	3.2	48	7.7
APR.									
01...	2500	12	--	6.5	2.4	4.0	3.2	32	7.3
15...	1900	12	60	6.7	2.5	3.9	1.7	33	6.8
MAY									
01...	1820	8.8	90	10	4.1	5.4	2.0	52	9.6
15...	5950	9.5	60	10	3.9	4.6	2.3	45	8.5
JUNE									
01...	1570	10	0	12	4.0	5.0	2.0	54	6.8
15...	1840	9.5	0	12	5.0	5.3	2.6	57	7.4
JULY									
01...	955	11	30	13	4.3	4.9	2.6	56	7.1
15...	648	11	10	10	3.6	4.9	2.5	51	5.6
AUG.									
01...	1310	12	--	11	4.0	5.9	2.6	53	7.6
15...	1650	11	30	12	4.4	4.9	2.3	55	7.9
SEP.									
01...	1160	13	--	10	3.2	4.6	2.2	46	5.8
15...	1540	12	10	11	4.2	5.4	2.6	51	7.7

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA.--Continued

EXTREMES.--1973-74:

Specific conductance: Maximum daily, 210 micromhos July 10; minimum daily, 70 micromhos Jan. 21.

Water temperatures: Maximum, 24.0°C on many days in July and August; minimum, 5.0°C on several days in November, February, and March.

Period of record:

Specific conductance (1950-56, 1968-74): Maximum daily, 340 micromhos June 16, 1972; minimum daily, 54 micromhos May 14, 1971.

Water temperatures: Maximum, 35.0°C Aug. 15, 1968; minimum, freezing point on many days during winter period.

REMARKS.--Daily sediment records based on once-weekly sediment samples and water-discharge hydrograph.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	COLOR (PLATINUM-COBALT UNITS)
OCT.									
01...	4.8	.1	.07	.00	78	46	0	122	15
15...	4.3	.1	.02	.00	76	40	0	114	15
NOV.									
01...	5.5	.1	.00	.00	78	46	0	126	5
15...	5.3	.1	.09	.00	83	45	0	120	20
DEC.									
01...	5.4	.1	.10	.01	77	41	1	128	20
15...	4.8	.1	.20	.00	79	45	0	118	25
JAN.									
01...	4.3	.1	.20	.01	65	38	3	102	35
15...	2.8	.1	.63	.04	64	28	6	75	40
FEB.									
01...	5.6	.1	.72	.07	97	45	4	126	25
15...	5.4	.1	.45	.02	74	40	0	113	36
MAR.									
01...	6.4	.2	.29	.00	70	40	0	114	30
15...	5.9	.1	.34	.13	87	38	0	114	25
APR.									
01...	4.2	.1	.27	.10	74	26	0	85	25
15...	4.2	.1	.22	.00	65	27	0	79	30
MAY									
01...	4.6	.1	.09	.01	83	42	0	108	20
15...	5.8	.2	.25	.01	72	41	4	104	15
JUNE									
01...	5.2	.1	.18	.00	67	46	2	121	5
15...	5.3	.1	.66	.02	112	51	4	132	5
JULY									
01...	6.4	.1	.01	.02	80	50	4	122	8
15...	5.0	.2	.08	.01	78	40	0	110	7
AUG.									
01...	5.3	.1	.42	.02	98	44	0	126	7
15...	4.9	.2	.08	.01	82	48	3	124	7
SEP.									
01...	3.4	.2	.00	.00	58	38	0	103	20
15...	4.7	.1	.70	.04	76	45	3	110	4

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974 (ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	126	128	102	126	114	85	108	130	120	120	100
2	120	126	116	107	120	114	86	110	140	120	130	102
3	88	102	114	106	134	96	84	107	85	150	110	110
4	88	139	94	106	98	100	92	110	120	145	110	99
5	126	114	94	106	130	128	93	108	135	130	112	96
6	124	102	118	102	93	124	94	112	85	110	85	112
7	124	116	119	106	94	119	94	108	140	160	100	100
8	114	140	118	105	120	118	92	106	140	150	111	90
9	116	120	118	109	119	120	84	108	130	140	110	100
10	126	118	118	109	84	114	86	110	130	210	120	90
11	120	98	119	110	82	110	88	108	120	190	120	90
12	122	122	120	116	83	106	94	106	140	160	105	90
13	122	108	118	114	112	108	93	108	130	140	105	100
14	115	105	116	98	114	118	78	104	130	115	138	100
15	114	120	118	75	113	114	79	104	140	112	130	110
16	112	122	96	110	110	101	95	108	130	115	124	120
17	110	120	94	112	122	82	94	110	130	115	128	120
18	109	114	96	102	114	85	96	119	110	138	110	120
19	118	124	98	100	126	114	94	100	115	138	110	100
20	120	108	99	134	128	110	97	100	135	140	116	110
21	118	112	102	70	112	100	88	115	130	132	120	90
22	108	126	106	76	112	77	90	114	135	130	120	95
23	116	128	100	76	104	78	86	115	140	140	130	110
24	108	126	103	118	108	78	95	112	130	139	120	100
25	118	120	102	118	114	77	101	112	130	137	140	120
26	118	120	103	120	114	77	98	110	135	---	140	95
27	115	108	106	102	116	96	104	110	120	---	145	110
28	122	122	106	98	107	98	105	135	110	---	144	90
29	120	114	108	71	---	114	118	140	115	---	140	90
30	126	113	108	136	---	---	120	---	120	---	140	120
31	120	---	108	128	---	114	---	140	---	---	125	---
MONTH	116	118	108	105	111	103	93	112	126	139	121	103

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974 (ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	---	10.0	11.0	7.0	8.0	15.0	21.0	21.0	24.0	23.0
2	16.0	13.0	9.0	10.0	12.0	7.0	8.0	15.0	---	22.0	24.0	23.0
3	20.0	12.0	9.0	10.0	10.0	8.0	11.0	15.0	---	22.0	24.0	24.0
4	20.0	10.0	10.0	10.0	10.0	8.0	12.0	15.0	20.0	21.0	23.0	23.0
5	20.0	10.0	10.0	10.0	9.0	8.0	12.0	15.0	---	21.0	23.0	23.0
6	---	10.0	10.0	10.0	10.0	8.0	9.0	16.0	---	21.0	22.0	23.0
7	---	10.0	10.0	9.0	10.0	9.0	9.0	15.0	---	21.0	23.0	23.0
8	17.0	11.0	10.0	10.0	9.0	10.0	11.0	16.0	---	23.0	23.0	23.0
9	---	---	10.0	11.0	8.0	11.0	11.0	16.0	21.0	23.0	23.0	22.0
10	---	5.0	11.0	10.0	8.0	---	11.0	16.0	---	23.0	22.0	22.0
11	14.0	---	10.0	10.0	7.0	10.0	10.0	15.0	22.0	23.0	24.0	22.0
12	13.0	8.0	10.0	10.0	6.0	8.0	15.0	16.0	---	22.0	22.0	22.0
13	13.0	7.0	10.0	10.0	6.0	8.0	15.0	16.0	21.0	22.0	22.0	23.0
14	17.0	7.0	10.0	10.0	6.0	8.0	15.0	17.0	21.0	23.0	23.0	23.0
15	17.0	8.0	10.0	---	6.0	8.0	15.0	17.0	22.0	24.0	24.0	23.0
16	17.0	7.0	9.0	10.0	6.0	7.0	13.0	17.0	21.0	24.0	24.0	23.0
17	16.0	7.0	10.0	10.0	---	6.0	13.0	17.0	21.0	23.0	24.0	23.0
18	13.0	8.0	10.0	10.0	7.0	5.0	13.0	20.0	19.0	24.0	24.0	23.0
19	13.0	10.0	10.0	10.0	7.0	7.0	13.0	20.0	19.0	24.0	23.0	23.0
20	13.0	8.0	---	10.0	8.0	8.0	13.0	20.0	21.0	24.0	23.0	23.0
21	13.0	10.0	10.0	10.0	8.0	8.0	15.0	---	21.0	24.0	23.0	22.0
22	13.0	10.0	10.0	10.0	8.0	7.0	15.0	---	21.0	24.0	23.0	22.0
23	13.0	9.0	10.0	10.0	8.0	8.0	15.0	20.0	21.0	24.0	23.0	20.0
24	13.0	10.0	10.0	10.0	5.0	8.0	15.0	20.0	20.0	24.0	23.0	20.0
25	13.0	10.0	10.0	10.0	5.0	7.0	15.0	20.0	19.0	24.0	23.0	20.0
26	13.0	10.0	10.0	10.0	5.0	7.0	15.0	20.0	20.0	---	23.0	19.0
27	13.0	11.0	10.0	12.0	5.0	7.0	15.0	20.0	20.0	---	24.0	15.0
28	---	10.0	9.0	11.0	5.0	8.0	16.0	19.0	20.0	---	24.0	16.0
29	13.0	10.0	9.0	10.0	---	8.0	15.0	19.0	22.0	---	24.0	16.0
30	13.0	10.0	10.0	10.0	---	---	15.0	---	21.0	---	23.0	17.0
31	13.0	---	9.0	11.0	---	7.0	---	20.0	---	---	24.0	---
MONTH	15.0	9.5	10.0	10.0	7.5	8.0	13.0	17.5	---	23.0	23.5	21.5

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	623	11	19	3030	25	205	2190	30	177
2	1320	17	61	2990	20	161	1040	13	37
3	3460	43	402	2690	14	102	727	10	20
4	4440	50	599	1110	10	30	883	15	36
5	2450	23	152	979	10	26	2030	20	110
6	2660	22	158	1660	15	67	3110	25	210
7	1060	13	37	1840	15	75	4940	50	667
8	728	10	20	1830	20	108	3590	20	194
9	1620	18	91	1650	18	80	3120	48	413
10	1790	20	97	2040	15	83	6530	25	441
11	1530	22	91	1030	15	54	5940	20	321
12	1630	22	97	715	11	21	6220	60	1010
13	1990	25	134	1070	40	116	3130	37	313
14	1020	12	33	1920	25	130	4750	30	385
15	683	10	18	2060	25	139	4500	20	243
16	1240	20	67	1870	18	91	2130	16	92
17	1510	20	82	1420	15	58	1480	11	44
18	1490	16	64	715	10	19	2050	13	72
19	1470	12	48	684	8	15	2570	15	104
20	1910	20	103	782	13	27	2560	60	415
21	955	13	34	1550	20	84	9630	402	11600
22	641	8	14	2140	15	87	22600	60	4130
23	1180	15	48	1640	13	58	18600	50	2510
24	1510	15	61	2240	25	151	5050	44	600
25	1540	12	50	1050	12	34	7230	128	2500
26	1520	10	41	721	10	19	3710	30	301
27	1850	15	75	883	15	36	8960	100	2420
28	930	10	25	1560	15	63	9590	60	1550
29	731	10	20	1960	20	106	8070	40	872
30	2610	25	176	2750	35	260	7090	30	574
31	2220	14	84	--	--	--	2740	20	148
TOTAL	50311	--	3001	48579	--	2505	166770	--	32509

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8540	40	922	5930	50	801	3900	30	316
2	6000	25	405	5840	40	631	3220	22	191
3	8050	35	761	2130	20	115	1530	17	70
4	8540	30	692	1920	15	78	1320	15	53
5	8810	50	1190	6750	137	2500	2850	28	215
6	4790	43	556	5370	90	1300	3240	25	219
7	2280	30	185	5560	70	1050	4970	45	604
8	4380	55	715	6030	60	977	3520	31	295
9	4950	40	535	8010	50	1080	2570	20	139
10	7920	63	1350	2730	20	147	1390	15	56
11	7670	57	1180	1840	15	75	1150	14	44
12	5110	50	690	3540	25	239	2460	24	159
13	3930	40	424	3760	20	203	3140	20	170
14	1920	25	130	5870	76	1200	3390	18	165
15	3230	36	314	4150	51	571	2960	15	120
16	3180	26	223	3380	38	383	1590	15	64
17	2410	20	130	2180	17	100	1620	15	66
18	2290	30	185	2280	15	92	1490	14	56
19	2530	35	239	3640	35	344	2520	25	170
20	1430	18	69	3660	36	356	2220	19	114
21	1420	15	58	3810	25	257	3910	180	1900
22	8980	158	4320	4600	40	497	9670	105	2740
23	9770	120	3170	7670	90	1860	8110	55	1200
24	7940	80	1720	3220	25	217	3150	29	247
25	7660	40	827	2000	16	86	1880	19	96
26	7920	60	1280	4030	55	598	2780	24	180
27	7260	35	686	4300	41	476	2290	15	93
28	4290	30	347	4380	36	426	2870	20	155
29	7640	45	928	--	--	--	5350	77	1360
30	7870	56	1190	--	--	--	6470	110	1920
31	7410	60	1200	--	--	--	3160	65	555
TOTAL	176120	--	26621	118580	--	16659	100690	--	13732

02066000 ROANOKE (STAUNTON) RIVER AT RANDOLPH, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2350	40	254	2460	20	133	2170	9	53
2	2560	40	276	2290	19	117	2030	12	66
3	3340	62	559	2520	16	109	3760	20	203
4	6410	328	7210	2840	15	115	3700	15	150
5	14400	205	7970	2200	14	83	4740	62	793
6	16700	80	3610	2330	15	94	5050	55	751
7	13100	65	2300	2930	28	222	4630	48	600
8	5950	50	803	2560	23	159	5910	70	1120
9	9120	78	1920	2790	27	203	2290	25	155
10	6340	45	770	3490	30	283	1070	20	58
11	4930	36	479	3420	25	231	4740	69	1210
12	3750	28	284	2430	18	118	2720	35	257
13	3500	20	189	5160	73	1020	1830	20	99
14	2080	18	101	7080	82	1570	2710	38	278
15	1870	14	71	5020	59	800	2080	22	124
16	3050	25	206	3680	35	348	1140	20	62
17	3030	19	155	4650	40	502	974	14	37
18	2960	25	200	5690	66	1010	1550	20	84
19	2490	23	155	2900	32	251	1720	17	79
20	2410	27	176	1820	21	103	1700	15	69
21	2230	21	126	4920	75	996	3410	49	451
22	2190	20	119	2800	22	166	1650	20	89
23	2950	26	207	2300	18	112	830	15	34
24	5190	48	673	2110	15	85	775	10	21
25	3420	27	249	2210	8	48	1320	17	61
26	2780	15	113	1760	5	24	1620	15	66
27	2350	15	95	1790	10	48	1670	13	59
28	2080	12	67	1990	10	54	1890	15	77
29	1990	10	54	5410	80	1400	2290	15	93
30	3850	70	728	5720	58	896	1230	12	40
31	--	--	--	2620	10	71	--	--	--
TOTAL	139370	--	30119	101894	--	11371	73209	--	7239

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	929	10	25	1600	22	95	1060	20	57
2	1500	20	81	1520	29	119	973	18	47
3	1710	16	74	1790	25	121	1110	15	45
4	1310	15	53	1640	20	89	3130	35	296
5	1320	25	89	3090	55	459	2800	28	212
6	3160	150	1280	4450	32	384	4420	241	4270
7	1740	25	117	2480	20	134	20000	156	6630
8	1440	15	58	2020	25	136	22800	30	1850
9	3980	55	822	1960	68	360	9380	23	582
10	3730	30	302	2260	35	214	3220	20	174
11	1460	19	75	1600	20	86	2650	20	143
12	708	11	21	1040	15	42	2210	20	119
13	660	10	18	1280	18	62	2130	15	86
14	672	12	22	2460	28	186	2420	23	150
15	648	8	14	2230	25	151	1490	15	60
16	1090	14	41	1800	30	146	1030	10	28
17	1540	14	58	1250	40	135	1530	21	87
18	1550	15	63	1040	50	140	1950	20	105
19	1490	12	48	766	67	139	1840	25	124
20	1260	10	34	1280	70	242	1870	20	101
21	950	8	21	1780	50	240	1760	22	105
22	620	8	13	1720	30	139	1220	14	46
23	868	14	33	1770	20	96	762	9	19
24	1250	10	34	1690	25	114	1100	14	42
25	1260	13	44	1180	20	64	1730	15	70
26	1500	15	61	699	15	28	1590	20	86
27	5650	100	1530	1210	45	147	1600	22	95
28	3680	38	378	2330	50	315	1600	17	73
29	1620	20	87	2390	61	394	1030	10	28
30	1490	20	80	1770	52	249	705	10	19
31	1790	18	87	1280	40	138	--	--	--
TOTAL	52575	--	5663	55375	--	5364	101110	--	15749

TOTAL DISCHARGE FOR YEAR (CFS-DAYS) 1184579
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS) 170531

02075500 DAN RIVER AT PACES, VA.

LOCATION.--Lat 36°38'32", long 79°05'23", Halifax County, at gaging station on right bank 100 ft (30 m) upstream from bridge on State Highway 658, 0.5 mi (0.8 km) southeast of Paces, 0.5 mi (0.8 km) upstream from Big Toby Creek, 2.7 mi (4.3 km) upstream from Birch Creek, and at mile 36.0.

DRAINAGE AREA.--2,550 mi² (6,600 km²), approximately.

PERIOD OF RECORD.--Chemical analyses: October 1955 to August 1956.
Water temperatures: January 1954 to September 1956.
Sediment records: January 1954 to September 1974.

REMARKS.--Daily sediment records based on once-weekly sediment samples and water-discharge hydrograph.

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1120	54	163	1810	40	195	1920	31	161
2	1440	50	194	1710	37	171	1710	25	115
3	3720	74	699	1630	34	150	1490	21	84
4	3400	75	689	1610	32	139	1330	20	72
5	2130	75	431	1480	30	120	1600	35	151
6	1780	70	335	1500	28	113	2440	110	725
7	1430	63	243	1620	25	109	3930	170	1800
8	1590	60	258	1630	24	106	2690	85	615
9	1300	48	168	1540	22	91	4870	224	3620
10	1500	59	239	1470	19	75	9610	200	5190
11	1890	56	285	1420	15	58	5290	90	1290
12	1810	45	220	1250	14	47	3370	60	546
13	1730	40	187	1200	17	55	2760	45	335
14	1690	36	164	1320	20	71	2750	40	297
15	1250	39	132	1420	20	77	2910	42	330
16	1150	36	112	1450	22	86	2830	40	306
17	1220	40	132	1420	25	96	3050	50	412
18	1270	43	147	1400	23	87	3200	45	389
19	1240	40	134	1280	20	69	3090	41	342
20	1220	42	138	1170	15	47	3040	48	394
21	1270	40	137	1340	20	72	10000	413	14400
22	1150	46	143	1470	30	119	20500	980	54200
23	1090	45	132	1650	35	156	18800	300	15200
24	1180	45	143	1650	30	134	5980	120	1940
25	1260	46	156	1520	28	115	4370	75	885
26	1250	45	152	1330	23	83	4070	63	692
27	1240	42	141	1290	20	70	3760	60	609
28	1280	40	138	1590	25	107	6420	170	2950
29	1350	45	164	1930	40	208	4590	115	1430
30	2590	70	490	2440	49	323	3880	80	838
31	2290	55	340	--	--	--	3410	66	608
TOTAL	49830	--	7208	45540	--	3349	149640	--	110925

02075500 DAN RIVER AT PACES, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6030	218	4240	4050	90	984	3130	45	380
2	9010	280	6810	3770	85	865	3060	42	347
3	5600	158	2390	3580	72	696	2920	38	300
4	5150	100	1390	3250	50	439	2510	33	224
5	5110	70	965	3320	60	538	2430	30	197
6	4680	58	733	3520	76	722	2770	35	262
7	4190	51	577	4720	118	1500	2850	36	277
8	3530	57	543	66[illegible]	196	3490	2750	40	297
9	4450	77	925	7820	142	3000	2660	45	323
10	5770	83	1290	5780	125	1950	2590	39	273
11	5150	72	1000	4090	76	839	2180	35	206
12	4380	58	686	3610	55	536	2280	35	215
13	3950	53	565	3610	40	390	2860	45	347
14	3470	50	468	3430	31	287	2950	49	390
15	2820	48	365	3330	29	261	2680	40	289
16	3260	40	352	3390	26	238	2550	33	227
17	3110	38	319	4200	85	964	2780	27	203
18	2970	31	249	4360	73	859	2720	25	184
19	2850	29	223	4060	50	548	2450	25	165
20	2810	25	190	4070	43	473	2560	35	242
21	3700	68	1010	3850	40	416	3570	102	1030
22	15000	499	20800	4070	80	879	8340	271	6210
23	15000	360	14600	4880	108	1420	6420	240	4160
24	5700	165	2540	4250	85	975	4030	180	1970
25	4690	120	1520	3460	70	654	3320	80	717
26	5180	120	1680	3160	58	495	3060	50	413
27	7570	219	4480	3270	50	441	3050	42	346
28	6950	170	3190	3200	50	432	2970	40	321
29	6250	130	2190	--	--	--	2900	40	313
30	5800	106	1660	--	--	--	3980	99	1130
31	4610	93	1160	--	--	--	7410	340	6660
TOTAL	168740	--	79111	114700	--	25291	102750	--	28518

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	5780	125	1950	2410	40	260	3130	67	566
2	4060	75	822	2450	40	265	5670	509	7960
3	3670	68	674	2550	41	282	4250	203	2330
4	3420	56	517	2720	46	338	3630	114	1120
5	10900	359	12700	2600	44	309	3030	80	654
6	18500	700	35000	2700	49	357	2940	106	841
7	18500	380	19000	2970	53	425	2860	110	849
8	6410	120	2080	2740	50	370	2770	105	785
9	7590	250	5120	2670	50	360	2640	95	677
10	7440	149	2990	4100	110	1220	2110	90	513
11	5380	100	1450	3720	83	834	1890	85	434
12	4530	90	1100	3210	66	572	2120	88	504
13	4210	98	1110	3490	71	669	2060	72	400
14	4030	75	816	4900	128	1690	1870	60	303
15	3460	64	598	3610	93	906	2190	144	851
16	3350	60	543	3370	85	773	2350	120	761
17	3570	68	655	3180	82	704	2090	85	480
18	3500	70	662	3080	90	748	2010	76	412
19	4400	87	1030	3070	88	729	1950	70	369
20	3730	75	755	2620	80	566	1830	65	321
21	3330	61	548	4160	208	2340	1770	65	311
22	2700	50	365	3510	76	720	2070	89	497
23	2870	55	426	2960	65	519	2070	75	419
24	3560	62	596	3200	66	570	1640	70	310
25	3430	60	556	3470	89	834	1420	62	238
26	3020	60	489	3000	80	648	1620	69	302
27	2900	56	438	2750	96	713	1720	70	325
28	2830	50	382	3640	153	1500	1780	73	351
29	2390	45	290	3590	88	853	1980	75	401
30	2280	42	259	3120	72	607	2020	72	393
31	--	--	--	2900	65	509	--	--	--
TOTAL	155740	--	93921	98460	--	22190	71480	--	24677

02075500 DAN RIVER AT PACES, VA.--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1740	70	329	1700	70	321	2110	90	513
2	1490	72	290	1670	70	316	3100	140	1170
3	1590	65	279	1900	100	513	2460	75	498
4	1580	57	243	2140	150	867	3400	163	1500
5	1600	48	207	5470	325	5170	3320	111	995
6	1970	45	239	8460	390	8910	5010	201	4450
7	6910	191	3960	7040	285	5420	20800	990	55500
8	7810	119	2510	4120	110	1220	25100	560	38000
9	3120	78	657	3000	86	697	14900	360	14500
10	2430	67	440	3200	112	968	4220	125	1420
11	2110	60	342	3440	190	1760	3350	93	841
12	1900	53	272	2470	110	734	3680	110	1090
13	1790	55	266	1910	70	361	3290	90	797
14	1660	41	184	1920	61	316	2810	77	584
15	1350	35	128	1780	60	288	2540	60	411
16	1240	40	134	1750	70	331	2030	52	285
17	1510	59	241	1930	82	427	1900	40	205
18	1550	62	259	1950	80	421	2540	110	754
19	1430	51	197	2930	277	2960	2690	190	1380
20	1460	45	177	3380	450	4110	2420	100	653
21	1370	40	148	2470	185	1230	2250	85	516
22	1210	36	118	1810	105	513	2150	67	389
23	1050	32	91	1720	72	334	1550	40	167
24	1270	36	123	1590	60	258	1450	35	137
25	1340	40	145	1540	57	237	1550	41	172
26	1420	53	203	1390	45	169	1590	49	210
27	2320	75	470	2090	78	440	1550	40	167
28	2240	120	726	1690	72	329	1600	46	199
29	1740	73	343	1620	70	306	1740	52	244
30	1320	60	214	1550	60	251	1500	23	93
31	1730	72	336	1630	73	321	--	--	--
TOTAL	63250	--	14271	81260	--	40498	128590	--	127940

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)	1229980
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)	578000

KANAWHA RIVER BASIN

03164000 NEW RIVER NEAR GALAX, VA.

LOCATION.--Lat 36°38'50", long 80°58'45", Grayson County, at gaging station on left bank at upstream side of bridge on U.S. Highway 58, 500 ft (152 m) downstream from Meadow Creek, 1.2 mi (1.9 km) southwest of Old Town, 3.1 mi (5.0 km) southwest of Galax, and 3.6 mi (5.8 km) downstream from Elk Creek.

DRAINAGE AREA.--1,131 mi^2 (2,929 km^2).

PERIOD OF RECORD.--Chemical analyses: April 1930 to March 1931, October to December 1949, October 1951 to September 1952, February 1967 to September 1974.
Water temperatures: October to December 1949, April 1968 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	1370	11	30	3.6	1.4	3.1	2.2	18	4.8
15...	1090	11	60	3.6	1.5	3.8	1.5	21	1.0
NOV.									
01...	1440	10	40	3.9	1.5	3.4	1.8	21	3.5
15...	952	9.8	100	3.6	1.4	3.5	1.4	20	3.1
DEC.									
01...	2030	8.9	20	3.2	1.2	2.6	1.6	14	4.6
15...	2240	12	40	3.3	1.4	3.4	1.1	17	4.2
JAN.									
01...	9010	9.8	20	2.8	1.3	2.4	1.4	12	3.3
15...	2880	12	30	3.6	1.3	3.0	1.0	16	6.4
FEB.									
01...	2430	12	20	3.4	1.4	3.0	1.1	16	4.4
15...	3620	12	60	3.6	1.7	3.1	1.1	15	4.8
MAR.									
01...	2520	12	110	3.3	1.3	3.0	1.0	16	3.5
15...	2450	10	40	3.4	1.2	3.3	1.2	15	3.5
APR.									
01...	3650	10	50	3.3	1.1	6.2	1.0	13	5.2
15...	3200	12	0	3.4	1.0	3.4	.9	16	5.4
MAY									
01...	1760	10	100	3.0	1.2	3.7	1.9	17	5.2
15...	3420	10	80	3.2	1.4	2.9	1.6	18	4.2
JUNE									
01...	2760	11	0	5.5	2.1	2.0	1.3	18	3.0
15...	1960	12	0	5.0	1.2	2.9	1.3	20	2.5
JULY									
01...	2900	10	120	3.3	1.4	2.5	1.3	19	3.7
15...	1480	10	20	4.1	1.5	3.0	1.3	24	3.3
AUG.									
01...	1260	10	160	4.5	1.4	2.6	1.8	19	6.0
15...	1440	12	140	4.8	1.4	3.3	1.4	22	3.4
SEP.									
01...	1160	12	220	4.2	1.4	3.6	1.5	23	2.7
15...	2410	13	120	4.1	1.4	3.3	1.3	21	3.6

03164000 NEW RIVER NEAR GALAX, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 60 micromhos Oct. 17, July 15; minimum daily, 40 micromhos Mar. 29.
Water temperatures: Maximum, 28.0°C July 29; minimum, 3.0°C Dec. 20, 21.

Period of record:
Specific conductance (1968-74): Maximum daily, 88 micromhos Nov. 13, 1971; minimum daily, 30 micromhos Feb. 11, 1969.
Water temperatures (1968-74): Maximum, 31.0°C July 17, 18, 1969; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	4.0	.1	.50	.00	52	15	0	55	20
15...	4.2	.1	.40	.00	48	15	0	56	25
NOV.									
01...	1.7	.1	.50	.07	39	16	0	53	23
15...	4.1	.1	.50	.10	38	15	0	50	23
DEC.									
01...	1.9	.1	.60	.00	43	13	2	44	35
15...	2.9	.1	.70	.00	45	14	0	50	25
JAN.									
01...	2.4	.1	.90	.00	39	12	2	44	40
15...	2.8	.1	.74	.00	42	14	2	46	20
FEB.									
01...	2.5	.1	.64	.04	45	14	2	45	10
15...	3.3	.1	.86	.00	42	16	4	49	25
MAR.									
01...	3.4	.1	.90	.00	38	14	0	45	22
15...	3.7	.1	.84	.00	41	14	1	49	20
APR.									
01...	2.7	.1	.99	.01	47	12	2	42	30
15...	2.9	.1	.54	.00	41	12	0	43	10
MAY									
01...	3.0	.1	.47	.01	42	12	0	48	10
15...	2.7	.1	.59	.00	41	14	0	45	15
JUNE									
01...	2.4	.1	.40	.00	25	22	8	45	10
15...	1.4	.0	.37	.00	28	17	1	48	7
JULY									
01...	3.4	.0	.51	.01	42	14	0	45	3
15...	2.8	.0	.27	.01	32	16	0	50	7
AUG.									
01...	.6	.1	--	--	45	17	1	50	10
15...	2.9	.1	.39	.00	42	18	0	53	5
SEP.									
01...	2.9	.1	.33	.00	69	16	0	56	5
15...	3.8	.0	.47	.01	60	16	0	54	8

03164000 NEW RIVER NEAR GALAX, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHUS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974 (ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	53	44	44	45	45	42	48	42	49	49	---
2	54	53	44	46	45	44	44	52	44	---	50	---
3	53	53	44	45	45	44	40	45	43	45	51	---
4	52	52	45	46	44	47	41	45	47	48	50	---
5	53	51	45	46	44	46	44	48	46	50	51	---
6	54	53	45	46	44	47	41	47	46	50	50	---
7	52	52	44	46	44	46	43	45	46	50	49	---
8	59	52	44	46	48	47	---	44	46	49	51	---
9	59	50	45	47	49	49	42	45	48	51	52	---
10	59	53	50	45	48	46	42	45	45	52	50	---
11	56	52	50	45	48	46	43	47	46	49	50	---
12	57	52	49	48	48	46	43	46	46	50	51	---
13	58	50	49	48	48	47	43	47	46	50	50	---
14	57	49	49	49	48	49	43	46	46	50	50	---
15	56	50	50	46	48	49	43	45	46	60	49	---
16	56	53	49	45	47	43	43	44	47	53	50	---
17	60	54	49	45	47	43	42	46	45	50	51	---
18	56	54	50	45	46	45	43	45	46	50	49	---
19	56	57	51	46	46	44	43	44	48	50	50	---
20	56	53	48	47	48	42	43	45	45	50	50	---
21	54	54	50	47	45	43	42	44	40	50	51	---
22	---	57	46	46	43	43	43	44	45	50	51	---
23	57	54	46	47	45	43	43	43	46	52	49	---
24	56	53	46	45	42	42	42	43	50	55	50	---
25	56	53	44	46	42	43	46	43	49	50	51	---
26	56	54	44	46	44	43	47	43	49	52	50	---
27	56	52	43	45	45	43	48	43	49	50	50	---
28	57	45	43	46	45	41	49	45	45	49	51	---
29	57	45	44	45	---	40	44	44	47	50	49	---
30	52	46	44	45	---	42	44	44	49	52	48	---
31	55	---	44	45	---	42	---	43	---	50	52	---
MONTH	56	52	46	46	46	45	43	45	46	51	50	---

03164000 NEW RIVER NEAR GALAX, VA.--Continued

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	18.0	13.0	6.0	8.0	6.0	7.0	20.0	18.0	22.0	20.0	22.0
2	24.0	19.0	14.0	6.0	8.0	6.0	7.0	20.0	18.0	---	20.0	22.0
3	24.0	19.0	13.0	6.0	8.0	8.0	7.0	21.0	18.0	22.0	20.0	21.0
4	24.0	19.0	13.0	7.0	5.0	8.0	7.0	21.0	18.0	21.0	21.0	21.0
5	24.0	19.0	13.0	7.0	5.0	10.0	7.0	21.0	19.0	21.0	20.0	20.0
6	24.0	19.0	13.0	7.0	5.0	10.0	7.0	21.0	19.0	22.0	21.0	20.0
7	24.0	18.0	13.0	8.0	5.0	10.0	8.0	18.0	19.0	21.0	20.0	19.0
8	24.0	18.0	13.0	8.0	5.0	10.0	---	18.0	19.0	22.0	20.0	19.0
9	24.0	18.0	12.0	9.0	5.0	10.0	8.0	18.0	18.0	23.0	20.0	19.0
10	24.0	18.0	12.0	9.0	6.0	10.0	9.0	17.0	18.0	22.0	20.0	19.0
11	20.0	17.0	11.0	9.0	6.0	9.0	9.0	18.0	19.0	21.0	20.0	19.0
12	20.0	17.0	11.0	8.0	7.0	7.0	10.0	19.0	19.0	21.0	20.0	19.0
13	20.0	17.0	10.0	8.0	7.0	7.0	10.0	19.0	19.0	21.0	21.0	19.0
14	20.0	17.0	8.0	8.0	7.0	7.0	10.0	19.0	20.0	21.0	20.0	18.0
15	20.0	16.0	7.0	8.0	7.0	7.0	11.0	20.0	20.0	22.0	20.0	18.0
16	20.0	15.0	7.0	8.0	7.0	7.0	11.0	20.0	20.0	22.0	20.0	18.0
17	20.0	14.0	6.0	8.0	7.0	7.0	11.0	20.0	21.0	21.0	20.0	18.0
18	20.0	12.0	6.0	8.0	7.0	7.0	12.0	20.0	21.0	21.0	20.0	18.0
19	20.0	10.0	5.0	9.0	7.0	5.0	12.0	20.0	21.0	22.0	20.0	18.0
20	20.0	10.0	3.0	9.0	7.0	5.0	12.0	21.0	20.0	21.0	21.0	18.0
21	20.0	11.0	3.0	9.0	7.0	5.0	13.0	21.0	20.0	21.0	21.0	18.0
22	---	11.0	4.0	9.0	7.0	5.0	13.0	21.0	20.0	22.0	22.0	18.0
23	20.0	11.0	4.0	9.0	4.0	6.0	14.0	21.0	20.0	22.0	22.0	18.0
24	19.0	11.0	4.0	7.0	4.0	6.0	15.0	20.0	21.0	20.0	23.0	17.0
25	19.0	11.0	5.0	9.0	4.0	6.0	15.0	20.0	21.0	---	23.0	17.0
26	19.0	12.0	5.0	9.0	4.0	7.0	15.0	19.0	21.0	21.0	23.0	16.0
27	18.0	12.0	5.0	9.0	4.0	7.0	18.0	19.0	22.0	21.0	23.0	16.0
28	18.0	12.0	5.0	9.0	4.0	8.0	18.0	18.0	22.0	22.0	23.0	16.0
29	18.0	12.0	5.0	9.0	---	8.0	19.0	19.0	22.0	28.0	23.0	15.0
30	18.0	12.0	5.0	9.0	---	8.0	19.0	18.0	22.0	22.0	23.0	15.0
31	19.0	---	5.0	8.0	---	7.0	---	18.0	---	22.0	22.0	---
MONTH	21.0	15.0	8.0	8.0	6.0	7.5	11.5	19.5	20.0	21.5	21.0	18.5

03176500 NEW RIVER AT GLEN LYN, VA.

LOCATION.--Lat 37°22'20", long 80°51'45", Giles County, on left bank at the steam electric plant of the Appalachian Electric Power Company, at Glen Lyn, 0.3 mi (0.5 km) upstream from East River, and 6.3 mi (10.1 km) downstream from Wolf Creek.

DRAINAGE AREA.--3,768 mi² (9,759 km²).

PERIOD OF RECORD.--Chemical analyses: April 1930 to March 1931, October 1949 to September 1950, October 1951 to September 1956, February 1967 to September 1974.
Water temperatures: October 1964 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
OCT.									
01...	1430	6.1	0	19	7.7	3.3	1.7	76	21
17...	2200	6.6	20	22	7.0	3.6	1.8	76	27
NOV.									
01...	5050	5.2	10	16	5.6	3.0	2.0	52	13
16...	2420	4.6	0	19	7.0	3.5	1.7	72	22
DEC.									
01...	9010	5.5	0	15	4.9	3.0	1.6	50	13
15...	8050	6.4	20	16	4.9	3.0	1.4	50	15
JAN.									
01...	22200	6.1	10	12	4.0	2.4	1.3	49	8.1
15...	8450	7.2	20	16	5.0	2.4	1.3	56	15
FEB.									
01...	7530	7.9	0	18	5.2	2.7	1.3	51	16
15...	7330	7.5	40	17	5.3	3.0	1.3	52	14
MAR.									
01...	7210	7.5	40	18	5.1	2.8	1.0	53	15
15...	9010	6.8	10	16	4.3	2.1	1.0	57	11
APR.									
01...	5690	7.7	40	16	5.1	3.3	1.2	58	14
15...	7650	7.0	10	16	5.0	2.0	1.2	59	12
MAY									
01...	5020	7.0	50	16	5.0	2.5	1.3	56	16
15...	11600	6.8	40	14	4.3	2.6	1.3	49	12
JUNE									
01...	7690	6.7	0	17	4.9	2.5	1.3	56	15
15...	2660	7.4	0	16	4.5	2.5	1.3	57	11
AUG.									
01...	4630	7.3	50	16	6.0	2.5	1.6	64	18
15...	5290	6.9	--	15	5.0	3.1	1.5	61	11
SEP.									
01...	1320	7.0	--	17	6.0	3.3	1.5	53	17
15...	8170	7.9	--	13	4.5	3.0	1.5	54	13

03176500 NEW RIVER AT GLEN LYN, VA.--Continued

EXTREMES.--1973-74:
Specific conductance: Maximum daily, 235 micromhos Nov. 21; minimum daily, 100 micromhos Sept. 14, 28.
Water temperatures: Maximum, 27.0°C Aug. 28; minimum, 4.0°C Dec. 18.

Period of record:
Specific conductance (1968-71, 1973-74): Maximum daily, 350 micromhos Nov. 6, 1968; minimum daily, 93 micromhos Jan. 1, Apr. 4, 1970.
Water temperatures (1964-71, 1973-74): Maximum, 29.0°C July 10, 1973; minimum, freezing point on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
01...	3.6	.1	.60	.04	111	79	16	180	15
17...	3.9	.1	1.6	.02	129	84	22	200	10
NOV.									
01...	3.1	.1	1.0	.16	87	63	12	146	15
16...	3.5	.1	.90	.01	120	76	18	175	15
DEC.									
01...	3.1	.1	.70	.00	85	58	8	138	7
15...	3.3	.1	1.2	.00	93	60	11	148	20
JAN.									
01...	3.2	.1	.60	.00	71	46	6	110	30
15...	3.3	.1	1.1	.02	92	60	14	136	10
FEB.									
01...	3.3	.1	1.5	.00	103	56	16	146	7
15...	3.7	.1	1.7	.01	93	64	14	144	15
MAR.									
01...	4.4	.2	1.6	.00	90	66	14	150	15
15...	2.9	.1	1.0	.00	79	58	11	128	15
APR.									
01...	5.4	.1	1.2	.01	92	61	14	137	20
15...	3.6	.1	1.0	.01	85	60	13	124	25
MAY									
01...	2.2	.1	1.0	.01	89	60	14	128	10
15...	3.0	.2	.93	.00	77	52	12	118	10
JUNE									
01...	2.4	.1	.48	.00	74	63	17	137	7
15...	2.7	1.3	.83	.00	108	58	12	129	7
AUG.									
01...	3.1	.0	1.1	.02	92	65	12	178	5
15...	3.0	.0	.78	.01	120	58	8	133	5
SEP.									
01...	4.1	.0	.90	.02	119	67	15	148	5
15...	2.9	.1	.70	.03	85	51	7	120	4

03176500 NEW RIVER AT GLEN LYN, VA.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	146	138	110	146	150	137	128	140	---	180	170
2	200	144	139	108	153	144	136	138	144	---	170	160
3	184	---	180	112	141	130	126	153	146	---	150	170
4	134	---	177	112	148	140	108	155	148	---	175	170
5	135	---	170	108	128	148	110	157	135	---	120	170
6	138	180	---	114	124	150	110	160	130	---	170	160
7	155	200	136	120	136	146	114	130	---	---	170	140
8	185	185	---	142	150	140	108	139	---	---	120	120
9	210	190	139	150	144	138	110	126	---	---	130	110
10	195	195	128	120	157	138	114	128	140	---	150	130
11	165	185	144	128	135	165	122	126	148	---	160	150
12	---	180	167	120	150	120	124	124	135	---	140	140
13	---	185	148	122	134	130	116	106	135	---	135	130
14	---	---	175	138	157	128	116	116	130	---	120	100
15	---	---	148	136	144	128	124	118	135	---	140	120
16	---	175	149	140	134	130	120	116	134	---	180	140
17	200	185	136	140	124	127	122	114	158	---	180	130
18	215	185	138	158	134	130	128	122	160	---	170	110
19	207	195	153	139	150	144	136	170	150	---	140	130
20	193	180	148	142	140	134	126	169	149	180	150	120
21	194	235	124	155	130	122	128	185	150	170	180	110
22	217	185	108	132	128	108	142	189	---	188	170	130
23	205	190	115	126	111	120	148	140	---	190	150	120
24	218	146	125	136	111	122	126	138	---	160	180	140
25	195	148	146	140	116	132	130	124	---	166	160	110
26	205	149	130	134	128	138	140	141	---	164	170	130
27	180	184	106	130	130	146	130	150	---	154	160	140
28	200	138	110	120	144	138	130	139	---	154	150	100
29	195	146	112	130	---	140	148	120	---	156	140	140
30	185	154	118	141	---	136	164	145	---	170	160	130
31	155	---	116	140	---	142	---	140	---	---	---	---
MONTH	186	175	139	130	137	136	127	139	---	---	156	134

TEMPERATURE (DEG. C) OF WATER , WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	14.0	10.0	7.0	9.0	8.0	11.0	19.5	22.0	---	24.0	25.5
2	20.5	14.0	10.0	6.0	10.0	8.5	14.0	18.0	22.0	---	25.0	24.0
3	21.0	---	9.0	7.0	10.0	9.0	14.0	18.0	19.0	---	25.0	24.0
4	22.0	---	10.0	7.5	9.0	12.0	12.5	17.5	21.0	---	24.0	22.0
5	22.5	---	12.0	7.0	7.0	13.0	13.0	16.0	20.5	---	23.0	22.0
6	22.0	13.0	---	7.0	8.5	11.0	10.0	16.0	22.0	---	24.5	22.0
7	21.0	11.0	10.0	8.0	9.0	12.0	11.0	14.0	---	---	24.0	21.5
8	22.0	9.5	---	9.0	8.0	13.0	12.5	16.0	---	---	23.0	21.0
9	21.0	10.5	9.0	7.0	7.0	9.0	12.0	17.0	---	---	24.0	21.5
10	22.0	8.5	7.0	9.0	6.0	15.0	10.0	17.0	24.0	---	25.0	22.0
11	21.0	7.5	6.0	9.5	7.0	13.0	10.5	19.0	23.0	---	24.0	23.0
12	---	8.0	6.0	8.5	7.0	11.0	12.0	15.0	22.0	---	23.0	24.5
13	---	10.0	7.0	6.0	8.0	9.5	14.0	15.0	23.0	---	24.0	25.0
14	---	---	7.0	6.0	9.0	9.0	15.0	19.0	23.0	---	24.0	23.0
15	---	---	7.0	7.0	9.5	9.0	15.0	19.0	23.0	---	24.5	21.5
16	---	13.0	7.0	9.0	9.0	10.0	15.0	18.0	23.5	---	25.5	20.0
17	17.5	11.0	5.0	10.0	5.5	8.5	14.0	20.0	21.0	---	25.5	21.0
18	16.0	10.0	4.0	10.0	8.0	8.0	13.0	20.0	21.0	---	24.5	21.0
19	16.5	10.0	5.0	9.0	8.0	12.0	14.5	22.0	20.0	---	23.0	22.0
20	16.5	10.0	6.0	---	9.0	12.0	14.0	21.0	22.5	---	25.0	23.5
21	17.0	---	6.0	11.0	8.0	10.0	14.5	20.0	25.0	---	24.0	23.0
22	16.5	11.0	5.0	9.0	10.0	9.0	16.0	20.0	24.0	---	24.5	23.0
23	17.0	12.0	5.0	10.0	9.0	10.0	16.0	19.5	24.5	---	26.0	19.0
24	17.0	11.0	7.0	9.5	8.0	10.0	15.0	20.0	22.5	---	26.0	18.0
25	17.0	---	7.0	10.0	8.0	9.0	12.0	19.5	---	24.0	25.0	18.0
26	17.5	13.0	8.0	10.0	5.0	9.0	13.5	19.0	---	24.5	25.5	18.5
27	16.0	14.0	9.0	11.0	6.0	11.0	15.0	20.0	---	24.0	26.5	19.0
28	17.0	15.0	8.0	11.0	7.0	12.0	15.5	18.0	---	24.5	27.0	20.0
29	16.0	11.0	6.5	10.0	---	11.0	17.0	20.0	---	25.0	26.0	20.5
30	14.0	10.0	6.5	10.0	---	10.0	19.5	21.0	---	25.0	26.0	19.0
31	14.0	---	8.0	9.0	---	10.0	---	20.0	---	---	---	---
MONTH	18.5	---	7.5	8.5	8.0	10.5	13.5	18.5	---	---	24.5	21.5

03473000 SOUTH FORK HOLSTON RIVER AT VESTAL, VA.

LOCATION.--Lat 36°39'06", long 81°50'39", Washington County, at gaging station on right bank 500 ft (152 m) upstream from bridge on U.S. Highway 58 at Vestal, 0.7 mi (1.1 km) downstream from Laurel Creek, 3.2 mi (5.1 km) northwest of Damascus, 4.9 mi (7.9 km) upstream from Middle Fork, and at mile 77.2.

DRAINAGE AREA.--301 mi² (780 km²).

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1950, October 1951 to September 1952, October 1971 to September 1974.
Water temperatures: October 1949 to September 1950, October 1967 to September 1973.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.										
05...	249	6.2	20	12	5.8	2.5	1.5	62	6.2	2.6
NOV.										
09...	348	5.8	60	11	3.9	2.8	2.0	48	8.1	1.7
DEC.										
14...	953	5.1	30	9.0	3.2	1.6	1.3	35	3.1	2.2
JAN.										
04...	2480	5.5	0	7.2	2.4	1.5	1.4	31	3.9	2.4
FEB.										
15...	1570	5.6	0	6.9	2.6	1.4	1.1	30	4.4	3.0
APR.										
09...	1370	5.4	10	11	3.1	2.3	1.3	42	6.0	3.5
MAY										
17...	610	5.3	20	10	3.5	2.3	1.3	47	4.8	3.5
AUG.										
16...	192	5.4	10	23	7.4	1.9	1.7	93	6.9	3.8

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
05...	.1	.40	.00	75	54	3	128	16.0	25
NOV.									
09...	.1	.40	.00	62	44	4	104	7.5	20
DEC.									
14...	.1	.50	.00	53	35	7	84	4.0	15
JAN.									
04...	.1	.70	.01	50	28	2	72	9.0	30
FEB.									
15...	.1	.61	.00	45	28	3	64	6.5	30
APR.									
09...	.1	.79	.02	64	40	6	92	7.5	30
MAY									
17...	.1	.35	.00	62	40	1	95	17.0	17
AUG.									
16...	.0	.39	.00	136	88	12	167	18.5	4

03490000 NORTH FORK HOLSTON RIVER NEAR GATE CITY, VA.

LOCATION.--Lat 36°36'31", long 82°34'05", Scott County, at gaging station on left bank 75 ft (23 m) upstream from bridge on U.S. Highway 23, 1.6 mi (2.6 km) downstream from Big Moccasin Creek, 2.1 mi (3.4 km) southeast of Gate City, and at mile 8.8.

DRAINAGE AREA.--672 mi^2 (1,740 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1949 to September 1951.
Water temperatures: October 1949 to September 1951, October 1967 to September 1974.

EXTREMES.--1973-74:
Water temperatures: Maximum, 28.5°C July 18, 28; minimum, 1.0°C Dec. 18, 19, 22, 23.

Period of record:
Water temperatures: Maximum, 31.0°C July 24, 1968, and on several days during August 1968; minimum, freezing point on many days during winter period.

REMARKS.--Temperature records furnished by Tennessee Valley Authority.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	21.5	20.5	11.0	9.5	9.5	8.5	9.0	8.5	9.0	8.0	7.0	4.5
2	22.0	20.0	11.5	9.5	9.5	8.5	8.5	7.0	9.5	9.0	10.0	7.0
3	22.0	21.0	13.0	10.5	9.5	8.5	8.5	7.0	10.0	9.0	11.5	9.5
4	23.0	20.5	14.0	11.5	10.0	9.0	9.0	8.5	9.0	6.5	13.5	10.5
5	21.5	20.0	13.5	11.5	11.5	10.0	9.0	9.0	6.5	5.5	13.0	11.5
6	21.0	19.0	11.5	10.0	11.0	10.0	9.0	9.0	5.5	5.0	13.0	12.0
7	21.0	19.5	10.5	9.0	10.0	9.0	9.0	8.0	6.0	5.5	14.5	11.5
8	21.0	20.0	11.0	9.0	9.0	8.5	8.0	7.0	6.0	5.5	15.0	13.5
9	22.0	20.0	11.0	9.0	8.5	8.0	8.5	7.0	5.5	5.0	15.5	13.5
10	21.5	19.5	9.0	8.0	8.0	6.0	10.0	8.5	5.0	4.0	14.5	14.0
11	21.0	19.0	8.5	6.5	6.0	4.5	10.5	10.0	5.0	4.5	14.0	13.0
12	20.0	18.5	8.5	6.5	5.0	4.5	10.0	7.0	6.0	3.5	14.0	13.0
13	20.0	18.5	9.0	7.0	5.5	5.0	7.0	5.5	6.0	4.5	13.0	10.0
14	20.0	18.5	10.0	8.5	5.0	4.5	5.5	5.5	8.5	6.0	10.0	8.5
15	19.5	18.0	11.5	9.0	5.0	4.5	6.5	5.5	9.5	8.5	9.5	8.0
16	18.5	16.0	11.5	10.0	4.5	4.0	9.0	6.5	9.0	8.0	9.0	8.5
17	16.0	14.0	10.0	9.0	4.0	1.5	10.5	9.0	8.0	6.5	8.5	7.0
18	15.0	13.5	9.5	8.5	1.5	1.0	11.5	10.0	7.0	6.0	7.0	6.0
19	15.0	13.0	11.0	9.5	2.0	1.0	11.0	10.5	8.0	6.5	8.5	7.0
20	15.0	13.5	11.5	10.0	3.5	2.0	11.0	10.5	8.5	8.0	9.5	8.5
21	15.5	14.0	12.0	11.0	3.5	1.5	11.5	11.0	9.0	7.0	10.0	9.0
22	15.5	14.0	12.0	11.0	1.5	1.0	11.0	10.0	9.5	8.5	9.0	8.5
23	16.0	14.5	11.5	11.0	1.5	1.0	10.0	9.0	9.0	7.0	9.5	8.0
24	15.5	14.0	13.5	11.5	3.0	1.5	9.5	9.0	8.0	6.5	10.0	9.0
25	15.0	13.5	14.0	13.5	5.5	3.0	10.0	9.5	7.0	4.5	9.5	8.5
26	15.5	14.0	15.0	13.5	9.0	5.5	11.0	10.0	5.0	3.5	9.0	8.5
27	15.0	13.5	15.5	14.5	9.5	9.0	11.5	11.0	5.0	3.0	9.5	8.0
28	15.0	14.0	15.5	13.5	9.0	7.0	11.0	10.5	5.0	4.0	11.0	9.5
29	14.0	11.5	13.5	10.5	7.0	6.0	10.5	10.0	---	---	12.0	10.5
30	11.5	10.5	10.5	9.0	7.0	6.0	10.0	9.5	---	---	11.5	10.5
31	10.5	10.5	---	---	9.0	7.0	9.5	8.5	---	---	11.5	9.5
MONTH	23.0	10.5	15.5	6.5	11.5	1.0	11.5	5.5	10.0	3.0	15.5	4.5

03490000 NORTH FORK HOLSTON RIVER NEAR GATE CITY, VA.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	10.5	21.5	18.5	21.0	19.0	21.0	19.0	28.0	24.5	25.0	24.0
2	15.0	13.0	20.0	16.5	19.5	18.0	23.5	20.0	27.0	25.0	25.0	24.0
3	15.5	14.0	17.0	15.0	20.0	18.0	25.0	21.5	26.5	24.5	24.5	23.0
4	15.0	13.5	18.0	15.5	20.5	18.5	25.5	23.0	25.0	24.0	23.0	20.5
5	13.5	10.5	17.0	14.5	21.0	18.5	25.0	23.5	26.0	23.5	21.5	19.0
6	11.0	9.5	15.0	14.0	21.5	19.5	25.0	23.5	26.0	23.5	21.5	20.0
7	11.0	9.5	15.0	13.0	23.5	20.0	26.0	23.5	26.0	23.0	21.5	19.5
8	11.5	10.5	16.0	13.5	23.5	21.0	27.0	24.0	25.5	24.0	23.0	20.0
9	11.0	9.5	16.5	15.0	25.0	21.0	26.5	24.0	25.5	23.5	21.5	20.0
10	10.5	8.5	16.0	15.5	25.0	23.0	26.0	24.5	25.5	24.0	22.0	20.5
11	12.0	9.0	18.5	15.5	24.5	21.5	26.0	24.5	25.0	23.5	23.5	21.0
12	12.0	10.5	18.0	15.5	24.0	21.5	26.5	23.5	25.0	23.5	23.5	21.5
13	14.0	11.5	16.0	15.0	24.0	21.0	26.5	23.5	26.0	23.5	23.5	21.0
14	15.5	13.5	16.0	14.5	24.5	21.0	28.0	24.0	26.5	24.5	22.0	21.0
15	15.5	14.0	17.0	15.5	24.0	21.5	26.5	24.5	27.0	24.5	21.5	20.0
16	15.5	13.0	20.0	16.5	23.5	21.0	26.5	24.0	27.0	24.5	21.0	19.5
17	14.0	12.0	21.5	19.0	22.0	20.5	26.5	23.5	25.5	24.0	20.5	19.5
18	14.0	11.5	23.0	19.5	23.0	19.0	28.5	25.0	25.5	23.0	20.5	19.0
19	14.0	12.0	22.0	19.5	23.0	20.0	26.5	24.5	24.5	22.0	21.5	19.5
20	15.5	12.0	21.5	19.5	22.0	21.0	26.0	24.0	25.0	22.0	21.5	19.5
21	16.5	14.0	20.5	19.5	23.0	21.0	26.5	24.0	25.5	22.0	21.0	18.0
22	16.0	15.0	21.0	19.5	23.0	20.5	26.5	24.0	26.0	23.5	19.0	16.5
23	16.5	14.5	21.0	19.0	21.0	20.0	25.5	24.0	26.5	23.5	18.0	16.0
24	14.5	13.0	20.5	18.5	21.0	19.0	25.0	23.5	26.5	24.0	16.0	15.0
25	14.5	11.0	20.5	18.5	21.0	19.0	27.0	23.5	27.0	24.5	15.5	14.0
26	15.0	12.0	19.0	17.0	22.0	19.0	26.0	24.5	27.0	25.0	17.0	15.0
27	16.0	13.5	19.0	16.5	23.0	19.5	27.0	23.5	27.0	25.5	17.0	16.0
28	18.5	15.0	20.0	16.0	21.0	19.0	28.5	25.0	27.0	25.0	19.0	16.5
29	20.0	16.0	20.5	18.0	19.0	16.5	28.0	25.0	27.0	25.5	19.0	18.0
30	20.5	17.0	21.5	18.5	19.5	18.0	28.0	25.0	27.0	25.0	18.0	16.0
31	---	---	22.0	20.0	---	---	28.0	24.5	25.0	24.0	---	---
MONTH	20.5	8.5	23.0	13.0	25.0	16.5	28.5	19.0	28.0	22.0	25.0	14.0

03527000 CLINCH RIVER AT SPEERS FERRY, VA.

LOCATION.--Lat 36°38'55", long 82°45'02", Scott County, at gaging station on right bank 200 ft (61 m) downstream from bridge on U.S. Highway 58, 0.5 mi (0.8 km) downstream from Copper Creek, 0.8 mi (1.3 km) northwest of Speers Ferry, 1.8 mi (2.9 km) south of Clinchport, and at mile 211.0.

DRAINAGE AREA.--1,126 mi^2 (2,916 km^2).

PERIOD OF RECORD.--Chemical analyses: April 1930 to March 1931, October 1949 to September 1950, October 1951 to September 1952, May 1968 to September 1974.
Water temperatures: November 1964 to September 1967.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.										
04...	456	2.7	20	40	13	7.0	2.9	164	34	6.1
NOV.										
08...	851	5.1	40	38	9.5	5.3	2.4	142	30	4.7
DEC.										
13...	935	5.3	10	38	9.7	4.2	1.7	137	25	4.7
JAN.										
10...	5590	6.0	0	25	7.0	3.4	1.2	97	19	2.5
FEB.										
14...	2730	4.7	20	34	7.6	3.4	1.7	120	19	3.4
APR.										
04...	4640	4.6	10	31	6.3	2.3	1.5	100	17	1.7
MAY										
16...	2630	6.0	40	28	6.6	2.6	1.4	100	19	2.3
JUNE										
27...	991	5.4	90	32	9.4	3.5	1.8	118	24	3.4
AUG.										
15...	316	4.0	0	38	13	6.0	2.4	145	30	5.9

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
04...	.1	.04	.00	202	150	19	355	20.5	25
NOV.									
08...	.1	.90	.02	183	130	18	305	6.5	10
DEC.									
13...	.1	1.1	.00	167	140	22	280	3.5	20
JAN.									
10...	.1	.90	.04	123	92	12	205	9.0	10
FEB.									
14...	.1	1.1	.02	143	120	18	240	5.5	33
APR.									
04...	.1	.84	.06	133	100	22	204	14.0	45
MAY									
16...	.1	.90	.02	126	97	15	210	15.0	25
JUNE									
27...	.1	.74	.00	142	120	22	242	18.5	20
AUG.									
15...	.1	.42	.00	196	150	29	302	23.0	5

03530510 NORTH FORK POWELL RIVER AT U.S. HIGHWAY 58 ALT., AT PENNINGTON GAP, VA.

LOCATION.--Lat 36°45'40", long 83°00'51", Lee County, at bridge on U.S. Highway Alt. 58, near east town limit of Pennington Gap, 3.6 mi (5.8 km) downstream from Straight Creek, and at mile 2.3.

DRAINAGE AREA.--80 mi² (207 km²).

PERIOD OF RECORD.--Chemical analyses: October 1971 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
OCT.									
03...	6.2	20	24	8.7	11	2.8	48	79	3.5
NOV.									
08...	5.2	120	13	5.2	6.1	1.8	29	40	3.2
DEC.									
13...	6.6	30	15	6.3	9.3	1.9	21	62	4.1
JAN.									
10...	5.7	10	6.2	2.9	3.6	1.4	12	25	1.4
FEB.									
14...	5.2	10	10	4.4	4.8	1.5	14	34	2.4
APR.									
03...	5.8	20	8.8	3.1	6.9	1.2	19	30	2.2
MAY									
16...	6.2	40	10	4.0	6.0	1.3	24	34	1.6
AUG.									
15...	5.1	50	18	6.4	6.5	1.8	42	52	3.3

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL ORTHO PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
OCT.									
03...	.2	.20	.15	172	96	56	285	19.5	20
NOV.									
08...	.1	.26	.00	95	54	30	156	4.5	15
DEC.									
13...	.1	.40	.12	125	64	46	195	3.5	15
JAN.									
10...	.1	.40	.01	57	28	18	88	10.0	15
FEB.									
14...	.1	.54	.00	77	43	32	120	5.0	17
APR.									
03...	.2	.29	.01	66	34	19	98	14.5	23
MAY									
16...	.1	.22	.00	87	41	22	123	12.5	23
AUG.									
15...	.5	.08	.00	134	71	37	189	19.5	4

PART 3. GROUND-WATER RECORDS

ACCOMACK COUNTY

375600075280002. Local number 67M2. U.S. Naval Air Station well B31. Wallops Station. Drilled unused water-table well in sand of Columbia Group of Pleistocene age, diam 8 in (20 cm), depth about 60 ft (18 m), screen depth unknown. Lsd 34.10 ft (10.394 m) above msl. MP top of casing, 6.09 ft (1.856 m) above lsd. Highest water level 17.82 ft (5.432 m), May 9, 1963; lowest 22.31 ft (6.800 m), Jan. 20, 1967. Records available: 1963-74.

Date	Water level
Jan. 28, 1974	18.91
May 29	19.31

ALBEMARLE COUNTY

380333078264801. Local number 43N1. Key West Development, Charlottesville. Virginia State Water Control Board well 28. Drilled unused water-table well in Lynchburg Formation of Precambrian age, diam 6 in (15 cm), depth 409 ft (125 m), cased to 52 ft (16 m). Lsd about 335 ft (102.1 m) above msl. MP top of casing, 0.3 ft (0.09 m) above lsd. Highest water level 11.58 ft (3.530 m), May 31, 1971; lowest 19.50 ft (5.944 m), Oct. 15-18, 1968. Records available: 1967-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period October 1973 to June 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
5	18.27	18.38	18.38	15.97	16.23	16.77	16.75	16.92	17.23
10	18.52	18.41	17.85	16.35	16.38	16.88	16.47	17.04	17.36
15	18.57	18.37	17.90	16.36	16.50	16.83	16.54	17.08	17.75
20	18.62	18.43	17.94	16.56	16.60	16.90	16.70	17.05	17.72
25	18.67	18.40	15.93	15.77	16.65	16.88	16.73	17.30	17.30
Eom	18.31	18.45	15.70	15.92	16.72	16.80	16.74	17.32	...

NOTE.--Recorder removed June 26, 1974. Water level Sept. 5, 1974, 17.49 ft from taped measurement.

APPOMATTOX COUNTY

372133078493701. Local number 40G1. Town of Appomattox. Virginia State Water Control Board well 12. Drilled unused water-table well in metamorphic rock of uncertain age, diam 8 in (20 cm), depth 288 ft (88 m), cased to 40 ft (12 m). Lsd about 860 ft (262 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 34.78 ft (10.601 m), June 13, 1973; lowest 51.68 ft (15.752 m), Dec. 20, 1970. Records available: 1967-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	37.88	38.76	39.40	40.10	40.12	39.50	38.98	38.67	38.57	38.60	39.32	40.39
10	37.98	39.19	39.59	40.02	39.90	39.61	39.22	38.56	38.30	38.57	39.56	40.27
15	38.01	38.85	39.87	39.86	40.04	39.44	38.86	38.58	38.43	38.65	39.70	40.42
20	38.22	39.37	40.02	40.07	40.00	39.37	39.10	38.67	38.48	38.83	39.85	40.49
25	38.30	39.22	40.07	40.10	39.80	39.54	38.92	38.43	38.50	39.05	39.90	40.50
Eom	38.40	39.67	40.07	39.82	39.72	39.17	38.62	38.48	38.60	39.24	39.95	40.63

ARLINGTON COUNTY

385346077073701. Local number 53V1. Arlington County School Dept., Langston School. 4854 Lee Highway, Arlington. Dug unused water-table well in Brandywine Formation of Pleistocene age and Bryn Mawr (?) Gravel of Pliocene (?) age, overlying the Sykesville Formation of Precambrian age, diam 24 in (61 cm), depth 35 ft (11 m), terra-cotta casing. Lsd 410 ft (125.0) above msl. MP inner flange of manhole at lsd. Highest water level 17.74 ft (5.407 m), Apr. 20, 1935; lowest 34.80 ft (10.607 m), Jan. 4, 1932. Records available: 1931-74.

Date	Water level	Date	Water level	Date	Water level
Oct. 2, 1973	24.15	Mar. 1, 1974	25.31	July 30, 1974	26.34
Nov. 1	24.13	Mar. 29	25.97	Aug. 27	27.09
Dec. 3	26.45	Apr. 29	24.65	Sept. 30	26.98
Jan. 2, 1974	26.52	May 31	24.86		
Jan. 31	25.18	June 28	25.38		

385253077042301. Local number 54V3. U.S. Dept. of Defense. Arlington National Cemetery. Dug unused water-table well in terrace gravels of Holocene age and sand of Early Cretaceous age, diam 4 ft (1.2 m), depth 50 ft (15 m). Lsd 205 ft (62.5 m) above msl. MP top of stone and brick casing, 3.00 ft (0.914 m) above lsd. Highest water level 40.73 ft (12.414 m), Aug. 2, 1972; lowest 44.90 ft (13.686 m), Mar. 4, 1966. Records available: 1958-74.

Date	Water level	Date	Water level	Date	Water level
Oct. 2, 1973	41.40	Mar. 1, 1974	42.54	July 30, 1974	42.05
Nov. 1	42.25	Mar. 29	42.43	Aug. 27	42.37
Dec. 3	42.48	Apr. 29	42.10	Sept. 30	42.67
Jan. 2, 1974	42.71	May 31	41.89		
Jan. 31	42.66	July 1	41.82		

CHARLES CITY COUNTY

371956077055202. Local number 54G11. Near Charles City. Virginia State Water Control Board well 66. Drilled observation artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), depth 550 ft (168 m), screened 290-310 ft (88-94 m), 404-424 ft (123-129 m), 484-496 ft (148-151 m), 510-526 ft (155-160 m). Lsd 35 ft (10.7 m) above msl. MP top of casing, 1 ft (0.3 m) above lsd. Highest water level 49.76 ft (15.167 m), May 27, 1973; lowest 52.54 ft (16.014 m), Aug. 6, 1974. Records available: 1973-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	50.18	50.65	50.41	51.06	51.05	51.40	50.98	51.37	51.38	52.10	52.50	52.32
10	50.16	50.73	50.02	51.10	50.78	51.36	51.25	51.28	51.36	52.07	52.31	51.99
15	50.29	50.31	51.28	51.10	51.15	...	51.26	51.55	51.52	52.23	52.23	52.25
20	50.38	50.57	51.59	...	51.05	...	51.56	51.74	51.70	52.50	52.20	52.25
25	50.30	50.32	51.49	...	51.35	...	51.54	51.72	51.33	52.49	52.30	52.37
Eom	50.02	50.61	51.11	...	51.42	...	51.52	51.68	51.67	52.34	52.44	52.42

CITY OF COLONIAL HEIGHTS

371644077244601. Local number 51G1. Johnson and Swearingen. Pilcher well, Matoaka Manor. Drilled unused water-table well in Petersburg Granite of late Paleozoic age, diam 6 in (15 cm), depth 100 ft (30 m), cased to 50 ft (15 m), open hole 50-100 ft (15-30 m). Lsd 57.30 ft (17.465 m) above msl. MP top of casing, 1.00 ft (0.305 m) above lsd. Highest water level 11.13 ft (3.392 m), Jan. 18, 1960; lowest 19.09 ft (5.819 m), Jan. 14, 1942. Records available: 1939-74.

Date	Water level	Date	Water level	Date	Water level
Oct. 29, 1973	17.54	Feb. 25, 1974	14.66	June 26, 1974	15.40
Nov. 28	17.89	Mar. 27	14.35	July 30	16.22
Dec. 27	17.20	Apr. 25	14.25	Aug. 27	15.93
Jan. 29, 1974	15.67	May 28	14.94	Sept. 26	14.39

FAIRFAX COUNTY

385152077211301. Local number 52U1. Atwell Somerville. Fair Acres Farm. Northwest of Fairfax on U.S. Highway 50. Dug unused water-table well in Wissahickon Formation of late Precambrian (?) age, diam 4 ft (1.2 m), depth 24 ft (7 m), uncemented stone casing. Lsd 400 ft (121.9 m) above msl. MP top of access pipe, 3.05 ft (0.930 m) above lsd. Highest water level 9.17 ft (2.795 m), June 25, 1972; lowest 23.58 ft (7.187 m), Dec. 26, 1931. Records available: 1931-74.

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1973	15.81	Jan. 31, 1974	13.94	May 31, 1974	15.41
Nov. 1	16.33	Feb. 28	14.33	June 28	15.39
Nov. 29	16.72	Mar. 29	14.63	July 31	16.67
Jan. 3, 1974	14.55	May 3	14.03	Aug. 28	17.15

384518077163501. Local number 52U4. Sydenstricker Church. East of intersection of State Highways 641 and 643, Springfield. Dug unused water-table well in granite of undetermined age, diam 24 in (61 cm), depth 28 ft (9 m). Lsd 340 ft (103.6 m) above msl. MP hole in cement platform, 0.67 ft (0.204 m) above lsd. Highest water level 12.54 ft (3.822 m), Apr. 30, 1973; lowest 27.57 ft (8.403 m), Nov. 30, 1964. Records available: 1957-74.

Date	Water level	Date	Water level	Date	Water level
Oct. 1, 1973	18.87	Mar. 5, 1974	16.95	July 31, 1974	18.72
Nov. 1	19.41	Apr. 1	16.18	Aug. 28	20.19
Dec. 3	20.17	May 7	15.28	Sept. 30	21.04
Jan. 2, 1974	19.47	June 4	15.42		
Feb. 1	17.73	July 10	16.54		

FLOYD COUNTY

365436080190401. Local number 28D1. Town of Floyd. Virginia State Water Control Board well 20. Drilled unused water-table well in Lynchburg Formation of Precambrian age, diam 8 in (20 cm), depth 90 ft (27 m), cased to 52 ft (16 m). Lsd about 2,460 ft (750 m) above msl. MP top of casing, 0.8 ft (0.24 m) above lsd. Highest water level 12.00 ft (3.658 m), May 29, 1973; lowest 18.85 ft (5.745 m), Oct. 29, 1970. Records available: 1969-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	15.30	15.84	16.33	14.72	14.37	14.12	13.85	14.20	14.51	15.10	15.87	16.59
10	15.41	15.99	16.33	14.70	14.36	14.24	13.82	14.27	14.58	15.18	16.00	16.08
15	15.50	16.01	16.32	14.68	14.43	14.26	13.80	14.24	14.62	15.31	16.12	15.90
20	15.59	16.14	16.32	14.73	14.42	14.32	13.93	14.35	14.75	15.47	16.22	15.99
25	15.67	16.20	15.64	14.50	14.12	14.39	13.99	14.38	14.87	15.60	16.31	16.10
Eom	15.72	16.30	14.85	14.34	14.08	14.39	14.05	14.50	14.95	15.77	16.50	16.22

CITY OF FRANKLIN

364047076552401. Local number 55B22. City of Franklin. 5th Ave. and Middle St. Jetted observation artesian well in sand of Early Cretaceous age, diam 4 in (10 cm), depth 354 ft (108 m), screened 335-354 ft (102-108 m). Lsd 21.24 ft (6.474 m) above msl. MP top edge of manhole at lsd. Highest water level 14.5 ft (4.42 m), June 25, 1942; lowest 178.8 ft (54.50 m), Jan. 4, 1969. Records available: 1942-74. Water level affected by local pumpage.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1973	174.81	Apr. 15, 1974	172.15	Aug. 19, 1974	135.60
Nov. 1	173.62	June 6	175.06	Aug. 23	133.70
Nov. 27	175.41	July 16	177.63	Aug. 28	147.66
Jan. 21, 1974	172.99	July 24	169.60		
Mar. 11	176.16	Aug. 12	140.55		

HALIFAX COUNTY

364550078562301. Local number 39C1. Town of Halifax. Virginia State Water Control Board well 11. Drilled unused water-table well in granite and gneiss of uncertain age, diam 8 in (20 cm), depth 303 ft (92 m), cased to 52 ft (16 m). Lsd about 380 ft (116 m) above msl. MP top of casing, 1.2 ft (0.37 m) above lsd. Highest water level 37.09 ft (11.305 m), Aug. 1, 1973; lowest 45.09 ft (13.743 m), Dec. 30, 1968. Records available: 1968-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	37.62	37.92	38.13	...	38.78	38.47	38.20	37.97	37.87	37.69	37.68	37.78
10	37.63	38.08	...	...	38.70	38.54	38.30	37.90	37.73	37.61	37.74	37.67
15	37.65	37.90	...	38.47	38.70	38.43	38.15	37.93	37.77	37.61	37.74	37.69
20	37.72	38.14	...	38.61	38.73	38.34	38.24	37.97	37.75	37.64	37.74	37.63
25	37.74	38.09	...	38.70	38.66	38.45	38.14	37.85	37.74	37.68	37.70	37.59
Eom	37.77	38.27	...	38.60	38.59	38.25	38.00	37.85	37.73	37.72	37.67	37.58

HENRICO COUNTY

373607077331401. Local number 50J1. E. L. Gilman. On Three Chopt Rd. west of Michael Rd. Virginia State Water Control Board well 23. Drilled unused water-table well in Petersburg Granite of late Paleozoic age, diam 10 in (25 cm), depth 300 ft (91 m), cased to 68 ft (21 m), open hole 68-300 ft (21-91 m). Lsd 275 ft (83.8 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 1.33 ft (0.405 m), June 8, 1970; lowest 10.47 ft (3.191 m), Jan. 6, 1971. Records available: 1969-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period May to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	...	4.26	5.31
10	...	...	...	...	...	...	...	...	6.52	...	4.01	5.60
15	...	...	...	...	...	...	...	...	6.30	7.08	4.30	...
20	...	...	...	...	...	...	...	5.70	6.01	7.28	4.81	6.40
25	...	...	...	...	...	...	...	5.75	6.51	3.52	3.86	5.81
Eom	...	...	...	...	...	...	...	5.95	6.88	3.68	4.90	6.40

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	6.14	7.89	8.70	3.40	4.36	3.72	3.00	...	1.48	...	...	...
10	6.00	8.02	7.81	4.75	3.82	4.42	4.05	2.85	4.06	...	...	...
15	6.57	8.29	5.52	5.30	2.48	4.89	4.45	2.39	3.74	...	...	...
20	6.96	7.90	6.64	4.92	2.40	4.49	...	2.24	3.62	...	...	...
25	7.60	8.08	5.17	5.40	2.71	4.28	...	2.05	...	...	...	...
Eom	7.80	8.02	2.86	5.74	3.73	4.09	...	1.65	...	...	...	...

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	10.43	...	4.50	3.71	...	...	5.21	5.73	6.27
10	...	...	...	10.24	4.16	4.07	...	...	...	5.60	5.82	6.65
15	...	...	...	10.04	4.73	3.79	...	...	...	5.45	6.39	6.19
20	...	...	...	9.86	4.60	4.06	...	...	...	5.90	6.41	6.58
25	...	...	...	...	4.52	3.51	...	...	4.29	6.21	6.79	6.82
Eom	...	...	8.66	...	...	4.13	...	...	4.83	6.16	5.76	7.00

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.92	...	4.15	4.73	3.06	2.57	3.46	3.08	3.10	3.75	3.90	5.16
10	6.16	4.35	4.10	4.54	3.34	3.14	3.37	2.62	3.80	2.97	4.06	5.50
15	5.00	4.86	4.34	3.65	2.92	3.28	3.60	2.05	4.23	2.36	3.78	5.57
20	5.40	4.90	4.53	3.89	2.13	2.65	3.67	2.16	4.07	3.08	4.25	5.75
25	5.31	4.65	4.58	4.22	1.87	2.62	2.93	1.82	2.40	3.70	4.68	5.86
Eom	...	3.70	4.87	4.40	2.16	3.17	3.50	2.46	3.01	3.83	5.04	5.71

HENRICO COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.89	...	2.18	...	1.70	...	2.83	2.70	4.45	5.20	5.04	6.00
10	3.63	...	2.35	...	1.86	2.70	2.12	3.08	4.71	5.53	5.48	6.33
15	4.22	2.46	3.41	2.92	2.12	2.78	2.78	3.64	5.01	5.04	5.79	6.60
20	4.52	2.75	...	2.99	2.30	2.70	3.18	3.94	4.96	4.88	5.18	5.97
25	4.40	2.08	...	3.11	...	2.68	3.39	3.83	5.14	4.59	5.41	6.21
Eom	2.71	2.20	...	2.41	...	3.05	2.23	3.94	4.93	5.33	5.90	6.41

Lowest water level for the day, from recorder graph, period October 1973 to May 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.22	6.78	7.00	3.12	3.44	3.69	2.90	4.38	...	...	...	...
10	6.04	6.75	5.18	3.05	3.09	4.00	2.48	4.29	...	...	...	...
15	6.23	6.60	5.13	3.29	3.17	3.90	2.90	4.38	...	...	...	...
20	6.58	6.90	4.91	3.83	3.15	3.01	3.59	4.45	...	...	...	...
25	6.78	6.85	3.47	3.68	3.10	2.98	3.86	4.63	...	...	...	...
Eom	6.58	7.10	3.92	2.90	3.39	3.36	4.08	4.62	...	...	...	...

Lowest water level, from taped measurement,
June to September 1974

Date	Water level	Date	Water level
June 5, 1974	4.11	Aug. 5, 1974	5.58
July 8	6.02	Sept. 6	5.64

CITY OF HOPEWELL

371801077164201. Local number 52G1. Old Dominion Water Corp. Hopewell. Drilled unused artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), reported depth 300 ft (91 m), screen depth unknown. Lsd 50.26 ft (15.319 m) above msl. MP top of casing, 0.34 ft (0.104 m) above lsd. Highest water level 20.73 ft (6.318 m), Jan. 25, 1954; lowest 56.95 ft (17.358 m), Aug. 14, 1943. Records available: 1939-74.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Oct. 5, 1973	34.78	Jan. 4, 1974	33.62	Apr. 5, 1974	33.91	July 5, 1974	34.91
12	34.86	11	33.20	12	34.86	12	34.86
19	34.90	18	34.56	19	34.96	19	34.97
26	34.93	25	33.89	26	34.91	26	34.97
Nov. 2	34.62	Feb. 1	33.96	May 3	34.95	Aug. 2	34.82
9	34.88	8	34.11	10	34.86	9	33.91
16	35.08	15	34.22	17	34.77	16	34.06
23	35.06	22	34.43	24	34.80	23	34.61
30	34.97	Mar. 1	34.93	31	34.69	30	33.66
Dec. 7	35.00	8	34.97	June 7	34.35	Sept. 6	32.56
14	34.29	15	34.58	14	34.76	13	34.04
21	34.25	22	33.94	21	34.87	20	34.76
28	34.33	29	33.56	28	34.77	27	34.98

ISLE OF WIGHT COUNTY

364059076544901. Local number 55B16. Union Camp Corp. Franklin. Lumberyard well. Drilled observation artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), depth 305 ft (93 m), screened 285-305 ft (87-93 m). Lsd 25 ft (7.6 m) above msl. MP top edge of recorder shelf, 3.5 ft (1.07 m) above lsd. Highest water level 99.00 ft (30.175 m), Dec. 27, 1960; lowest 186.34 ft (56.796 m), Oct. 15, 1970. Records available: 1960-74. Water level affected by local pumpage.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	181.60	181.02	180.91	179.06	180.83	182.33	180.72	182.81	183.42	182.00	155.90	164.18
10	181.60	180.91	180.48	179.87	180.93	182.95	179.60	182.78	182.65	...	...	167.28
15	181.66	180.71	180.67	180.35	181.55	183.92	179.61	182.76	183.02	...	146.62	169.84
20	182.10	180.96	180.81	180.48	181.43	182.94	179.26	183.03	182.99	...	143.62	171.49
25	181.78	180.86	178.90	180.72	182.18	182.95	180.14	182.94	183.71	177.09	145.24	172.54
Eom	181.26	181.24	178.13	180.78	182.36	182.60	182.38	183.40	184.53	162.71	156.79	173.71

364116076545001. Local number 55B35. Union Camp Corp. Franklin. Drilled observation artesian well in sand of Early Cretaceous age, diam 4 in (10 cm), depth 628 ft (191 m), screened 430-435 ft (131-133 m), 475-480 ft (145-146 m), 580-585 ft (177-178 m), 618-623 ft (188-190 m). Lsd 32 ft (9.8 m) above msl. MP top of casing, 2.0 ft (0.61 m) above lsd. Highest water level 154.99 ft (47.241 m), Aug. 23, 1974; lowest 205.72 ft (62.703 m), Oct. 14, 1970. Records available: 1969-74. Water level affected by local pumpage.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1973	200.15	Apr. 15, 1974	198.41	Aug. 19, 1974	156.84
Nov. 1	197.72	June 6	196.94	Aug. 23	154.99
Nov. 28	198.99	July 16	201.90	Aug. 28	172.51
Jan. 21, 1974	197.14	July 24	193.58		
Mar. 11	200.63	Aug. 12	159.60		

ISLE OF WIGHT COUNTY--Continued

364125076544801. Local number 55B36. Union Camp Corp. Franklin. Drilled observation artesian well in sand of Early Cretaceous age, diam 4 in (10 cm), depth 860 ft (262 m), screened 720-725 ft (219-221 m), 800-805 ft (244-245 m), 855-860 ft (261-262 m). Lsd 37 ft (11.3 m) above msl. MP top of casing, 2.2 ft (0.67 m) above lsd. Highest water level 156.65 ft (47.747 m), Dec. 27, 1969; lowest 197.16 ft (60.094 m), Apr. 15, 1974. Records available: 1969-74. Water level affected by local pumpage.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1973	195.42	Apr. 15, 1974	197.16	Aug. 19, 1974	163.66
Nov. 1	193.09	June 6	187.77	Aug. 23	163.86
Nov. 28	193.88	July 16	195.30	Aug. 28	170.58
Jan. 21, 1974	193.20	July 24	194.50		
Mar. 11	194.91	Aug. 12	174.81		

364425076532701. Local number 55B45. R. J. Goodrich. Near Maynards Crossroads. Virginia State Water Control Board well 33. Drilled unused artesian well in sand and gravel of Early Cretaceous age, diam 4 in (10 cm), depth 348 ft (106 m), screened 338-348 ft (103-106 m). Lsd 37 ft (11.3 m) above msl. MP top edge of recorder shelf, 2.20 ft (0.671 m) above lsd. Highest water level 130.06 ft (39.642 m), Aug. 15, 1974; lowest 157.77 ft (48.088 m), July 22, 1974. Records available: 1970-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period December 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	140.37	...	...	141.39	144.79	138.61	...	...	...	143.09
10	...	...	140.86	...	...	141.32	144.75	138.52	...	...	...	145.05
15	...	...	141.03	137.00	...	142.00	143.00	...	...	...	146.09	145.24
20	...	...	...	137.44	...	142.72	142.17	139.73	...	...	145.15	145.19
25	...	...	140.50	137.46	...	143.18	141.92	140.13	...	...	145.18	145.02
Eom	...	...	135.37	138.50	...	143.84	141.36	141.00	...	...	145.28	144.74

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	145.18	145.66	145.23	142.65	...	...	...	...	147.37	147.01	...	...
10	144.78	145.47	144.40	143.05	...	...	...	...	147.75	146.90	...	...
15	145.53	147.56	145.28	142.86	...	...	...	...	147.41	144.59	...	...
20	145.04	146.47	146.99	144.41	...	...	...	147.81	147.62	147.88	...	...
25	144.12	144.96	145.81	...	...	...	...	148.10	146.68	147.01	...	...
Eom	145.40	145.06	142.59	...	...	...	...	147.82	146.91	148.95	...	...

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	149.99	151.65	151.37	...	146.44	148.11	152.25	...	151.26	151.69	150.53	151.50
10	...	151.48	...	...	147.42	148.50	...	150.70	149.99	150.22	151.20	152.84
15	150.44	...	...	148.79	148.14	149.05	...	150.73	151.84	151.01	151.80	153.57
20	151.58	...	...	147.50	148.56	151.34	...	150.15	151.71	150.70	151.71	153.54
25	151.44	...	...	146.73	148.80	152.07	...	150.67	152.00	151.96	152.49	153.31
Eom	151.56	...	...	146.22	148.22	152.05	...	151.27	152.65	150.92	153.02	152.40

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	152.90	153.30	152.35	151.84	152.27	153.18	153.88	154.73	...	156.87	...	...
10	152.80	154.31	153.07	152.29	152.78	153.71	...	...	156.17	156.20	132.90	142.33
15	153.20	154.40	152.68	152.97	152.79	154.43	155.14	...	155.27	156.96	130.06	143.74
20	153.81	153.04	152.37	152.54	153.85	154.27	155.02	...	155.12	157.40	130.20	145.10
25	153.54	152.65	151.95	153.07	153.47	154.08	155.31	...	155.57	153.25	...	146.32
Eom	152.67	152.90	151.42	152.85	153.40	153.82	154.78	...	155.57	144.67	...	146.97

365942076375301. Local number 57D1. Gwaltney, Inc. Smithfield. Virginia State Water Control Board well 5. Drilled unused artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), depth 454 ft (138 m). Lsd 42 ft or 12.8 m (previously reported 20 ft or 6 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 70.55 ft (21.504 m), Mar. 3, 1968; lowest 111.65 ft (34.031 m), Sept. 13, 1974. Records available: 1968-74. Water level affected by local pumpage. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	107.10	105.50	107.96	103.86	104.65	104.10	108.25	102.50	108.70	111.00	...	111.35
10	106.45	106.60	106.01	105.26	100.65	100.80	105.80	109.05	107.60	110.30	...	111.08
15	104.60	107.70	105.21	105.07	104.62	104.78	100.38	108.40	106.82	107.00	...	104.25
20	104.95	106.70	106.06	101.09	104.60	104.62	104.55	106.15	109.63	107.35	...	110.50
25	107.70	102.41	98.01	106.52	102.60	103.00	105.60	107.76	108.64	110.60	...	109.78
Eom	106.65	108.01	101.51	104.85	105.30	101.82	107.05	108.24	100.97	111.52	109.15	108.42

JAMES CITY COUNTY

371311076463601. Local number 56F1. U.S. Dept. of Interior. Colonial National Historical Park, Colonial Parkway near Jamestown. Virginia State Water Control Board well 18. Drilled unused artesian well in sand of Early Cretaceous age, diam 4 in (10 cm), depth 342 ft (104 m), screen depth unknown. Lsd 10 ft (3.0 m) above msl. MP top edge of recorder shelf, 3.15 ft (0.960 m) above lsd. Highest water level 43.29 ft (13.195 m), May 8, 1969; lowest 62.90 ft (19.172 m), Aug. 31, 1974. Records available: 1969-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period May to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	43.87	45.25	45.96	46.30
10	...	...	...	...	...	...	...	43.45	44.08	45.25	46.13	46.40
15	...	...	...	...	...	...	...	43.41	44.41	45.57	46.25	46.63
20	...	...	...	...	...	...	...	43.61	44.50	45.70	46.30	46.13
25	...	...	...	...	...	...	...	43.50	44.81	45.47	46.43	46.43
Eom	...	...	...	...	...	...	...	43.91	45.23	46.04	46.57	46.51

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	46.24	...	...	...	...	45.78	46.42	46.70	47.58	48.80	49.55	50.36
10	46.50	...	...	...	...	45.90	46.35	47.01	47.69	48.82	49.65	50.38
15	46.32	...	...	...	...	...	46.02	46.70	48.17	49.08	50.09	...
20	...	...	...	...	...	46.19	46.30	47.13	48.34	49.21	50.13	...
25	...	...	...	...	...	46.76	46.60	47.15	48.54	49.33	50.01	50.38
Eom	...	...	...	...	...	46.17	46.62	47.63	48.82	49.38	50.24	50.34

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	50.42	50.09	49.18	48.82	49.39	49.15	49.65	...	51.53	52.34	53.38
10	50.30	50.12	49.82	49.00	49.00	49.21	49.58	49.60	...	...	52.67	53.10
15	50.30	49.85	...	48.78	48.90	48.72	49.40	49.80	...	51.70	52.64	53.11
20	50.48	49.89	...	49.02	48.73	49.26	...	49.61	...	52.21	52.91	53.29
25	50.10	50.11	...	48.92	48.65	49.10	49.58	50.21	...	52.30	52.93	...
Eom	50.06	49.85	...	49.10	48.72	48.84	49.39	...	...	52.45	53.18	...

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	53.28	53.28	52.64	51.92	52.45	51.83	52.41	52.79	53.44	...	55.52	55.81
10	53.40	53.14	52.10	52.00	51.92	52.22	52.40	52.61	...	...	55.91	...
15	53.40	53.00	52.27	51.90	51.70	51.78	52.22	52.80	...	...	55.90	...
20	52.96	52.91	52.17	52.10	52.17	52.02	52.61	52.68	...	...	55.80	...
25	52.82	52.93	52.28	52.00	51.53	52.00	...	52.72	...	...	56.28	...
Eom	53.19	52.73	52.29	51.78	51.69	51.90	...	53.23	...	...	55.81	...

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	56.22	56.10	...	55.79	54.74	54.80	55.16	56.14	56.98	58.45	59.76	60.30
10	...	...	55.55	55.47	54.65	54.88	55.00	...	57.27	58.77	60.11	60.20
15	56.31	55.82	55.61	55.40	54.78	54.89	55.53	...	57.32	59.28	60.10	60.06
20	56.28	55.86	55.81	55.04	54.84	55.10	...	56.39	...	...	59.81	60.08
25	...	...	56.18	55.00	54.98	54.82	55.60	56.10	57.93	59.75	60.13	60.10
Eom	...	...	55.67	55.00	54.47	55.17	55.80	56.78	58.31	59.61	60.19	60.00

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	60.10	59.90	59.18	58.47	58.03	58.03	57.85	...	...	61.35	62.48	...
10	59.03	59.80	58.94	58.47	57.88	...	...	58.73	59.93	61.20	62.32	62.69
15	60.14	59.57	...	58.48	57.80	...	58.03	...	59.98	61.50	62.64	62.77
20	60.07	59.51	59.43	58.20	57.76	57.82	...	...	60.65	...	62.54	62.70
25	59.73	59.36	58.80	58.15	57.99	57.85	...	...	60.36	61.88	62.80	62.48
Eom	59.60	59.66	58.57	58.05	58.00	57.44	58.61	...	60.84	62.20	62.90	62.68

371749076441801. Local number 57G1. Eastern State Hospital. Williamsburg. Virginia State Water Control Board well 1. Drilled unused artesian well in sand of Early Cretaceous age, diam 8 in (20 cm), depth 555 ft (169 m), screened 410-435 ft (125-133 m), 500-550 ft (152-168 m). Lsd about 92 ft (28 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 127.42 ft (38.838 m), July 2, 1968; lowest 146.67 ft (44.705 m), Sept. 25, 1974. Records available: 1968-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	144.71	143.88	142.77	141.95	141.20	140.77	140.70	142.29	143.17	144.30	145.74	146.60
10	144.70	143.70	142.54	141.84	140.90	140.99	140.97	142.10	143.17	144.68	146.00	146.42
15	144.57	143.28	142.32	141.68	140.88	140.81	141.17	142.21	143.37	144.93	146.15	146.58
20	144.48	143.25	142.17	141.53	140.77	140.67	141.60	142.82	143.70	145.26	146.27	146.64
25	144.26	143.05	142.17	141.44	140.72	140.79	141.77	143.09	143.90	145.40	146.38	146.67
Eom	143.93	143.00	142.13	141.22	140.79	140.53	141.90	143.09	143.94	145.47	146.47	146.47

KING AND QUEEN COUNTY

374328077012801. Local number 54K6. C. L. Walker. Walkerton. Virginia State Water Control Board well 64. Drilled unused artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), depth 352 ft (107 m), screened 312-342 ft (95-104 m). Lsd 5 ft (1.5 m) above msl. MP top of casing, 1.35 ft (0.411 m) above lsd. Highest water level 12.64 ft (3.853 m), Sept. 1, 1972; lowest 17.41 ft (5.307 m), July 15, 1974. Records available: 1972-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period August to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	...	...	12.95
10	...	...	...	...	...	...	...	...	...	...	...	12.75
15	...	...	...	...	...	...	...	...	...	...	...	13.32
20	...	...	...	...	...	...	...	...	...	...	...	13.34
25	...	...	...	...	...	...	...	...	...	...	...	13.49
Eom	...	...	...	...	...	...	...	...	...	...	12.69	13.38

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	13.26	13.70	13.53	13.35	...	13.70	13.80	14.09	14.45	14.25	14.67	16.08
10	13.42	13.39	13.20	13.97	13.22	13.96	13.57	13.80	13.93	14.42	16.57	15.99
15	13.50	13.12	13.06	13.56	13.41	13.85	13.81	14.38	14.68	14.66	15.94	15.01
20	13.50	13.27	13.49	13.47	13.31	13.71	14.10	13.78	14.31	14.50	16.40	14.90
25	13.38	13.43	13.04	13.27	13.53	13.57	13.46	13.61	14.16	14.62	15.93	14.87
Eom	13.28	12.98	13.29	13.60	13.40	13.55	13.78	14.26	14.51	14.79	16.13	14.82

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	15.40	14.86	14.75	14.94	14.85	15.01	15.11	14.82	15.70	17.37	16.39	16.50
10	14.88	15.07	15.10	14.84	14.87	15.08	15.21	15.10	16.39	16.62	16.20	16.73
15	15.02	14.90	14.99	14.80	14.69	15.23	15.02	14.97	16.94	17.41	16.37	16.17
20	15.32	15.00	14.82	14.86	14.75	14.76	15.60	15.46	16.93	17.33	17.04	16.40
25	14.90	15.53	14.74	14.69	14.85	15.03	15.28	15.65	16.47	16.63	16.48	16.10
Eom	14.90	14.90	14.83	14.50	14.82	15.12	15.90	15.40	16.15	16.26	16.99	16.48

LANCASTER COUNTY

374249076230101. Local number 59K1. County High School. Kilmarnock. Virginia State Water Control Board well 15. Drilled unused artesian well in sand of Early Cretaceous age, diam 4 in (10 cm) from 0 to 168 ft (51 m), 2 in (5 cm) from 168 to 716 ft (51 to 218 m), depth 716 ft (218 m). Lsd about 85 ft (26 m) above msl. MP top of casing at lsd. Highest water level 95.81 ft (29.203 m), Feb. 11, 1968; lowest 110.44 ft (33.662 m), Sept. 30, 1974. Records available: 1967-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period February to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	107.87	107.61	107.23	107.50	107.81	108.22	108.38	...
10	...	...	...	...	107.70	107.62	107.30	107.51	107.70	108.18	108.38	...
15	...	...	...	...	107.76	107.69	107.18	107.65	108.21	108.35	108.44	...
20	...	...	...	...	107.52	107.37	107.60	107.73	108.07	108.94	108.52	...
25	...	...	...	...	107.50	107.34	107.48	107.88	107.83	108.92	108.60	109.80
Eom	...	...	...	...	107.63	107.02	107.80	107.80	108.27	108.40	109.17	110.44

LOUDOUN COUNTY

391542077423801. Local number 49Y1. American Telephone and Telegraph Co. Harpers Ferry. Virginia State Water Control Board well 22. Drilled unused water-table well in bedrock of Precambrian or Cambrian age, diam 6.5 in or 17 cm (previously reported 8 in or 20 cm), depth 516 ft (157 m), cased to 45 ft (14 m), open hole 45-516 ft (14-157 m). Lsd 1,100 ft or 335 m (previously reported 940 ft or 287 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 48.00 ft (14.630 m), June 22, 1972; lowest 60.30 ft (18.379 m), Sept. 30, 1974. Records available: 1969-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	59.70	59.75	60.02	58.19	58.08	58.54	54.37	58.07	57.57	58.70	...	...
10	59.78	59.87	59.89	58.52	58.30	58.63	54.78	58.26	57.89	58.84	...	...
15	59.80	59.91	59.97	57.58	58.50	58.64	55.09	55.44	58.20	59.01	...	...
20	59.84	59.97	60.00	58.20	58.44	58.62	56.32	56.98	58.41	59.15	...	...
25	59.89	60.00	58.95	57.40	58.54	58.41	57.22	57.60	58.55	59.25	...	...
Eom	59.82	60.01	56.90	57.64	58.60	54.37	57.75	58.10	58.61	...	...	...

NOTE.--Recorder removed July 26, 1974. Water level Aug. 28, 1974, 59.48 ft and Sept. 30, 1974, 60.30 ft from taped measurements.

LOUISA COUNTY

380217078133701. Local number 45N1. Tyler well. Near Thelma, 3 mi (5 km) southwest of Boswells Tavern on Tyler property near State Highway 640. Drilled observation water-table well in Wissahickon Formation of late Precambrian (?) age, diam 6 in (15 cm), depth 56 ft (17 m), length of casing unknown. Lsd about 500 ft (152 m) above msl. MP top of casing, 3.10 ft (0.945 m) above lsd. Highest water level 11.97 ft (3.648 m), Apr. 30, 1973; lowest 34.24 ft (10.436 m), Oct. 15, 1966. Records available: 1952-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	26.28	27.02	27.43	22.90	20.55	20.34	19.70	20.01	21.23	22.70	24.89	25.44
10	26.32	27.14	27.20	22.36	20.38	20.58	19.70	20.36	21.18	22.98	24.95	24.37
15	26.40	27.10	26.80	21.79	20.44	20.63	19.40	20.42	21.47	23.34	24.94	23.69
20	26.60	27.28	26.35	21.55	20.56	20.72	19.54	20.59	21.73	23.80	25.02	23.27
25	26.70	27.33	24.95	21.18	20.47	20.39	19.59	20.72	22.10	24.22	25.12	23.10
Eom	26.86	27.45	23.62	20.70	20.40	19.89	19.65	21.09	22.34	24.62	25.30	23.18

380131078001001. Local number 46N1. Town of Louisa. Virginia State Water Control Board well 56. Drilled unused water-table well in metamorphosed volcanic (?) rocks, diam 6 in (15 cm), depth 132 ft (40 m), length of casing unknown. Lsd 455 ft (138.7 m) above msl. MP top of casing, 0.6 ft (0.18 m) above lsd. Highest water level 26.27 ft (8.007 m), May 18, 1973; lowest 30.24 ft (9.217 m), Mar. 5, 1972. Records available: 1972-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period March to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	30.24	29.85	29.60	28.98	28.63	28.31	28.23
10	...	...	...	...	...	30.19	29.76	29.60	29.00	28.50	28.32	28.41
15	...	...	...	...	...	29.99	29.75	29.38	28.85	28.40	28.23	28.41
20	...	...	...	...	...	30.05	29.59	...	28.78	28.36	28.18	28.55
25	...	...	...	...	...	29.90	29.47	...	28.69	28.30	28.15	28.60
Eom	...	...	...	...	...	29.81	29.48	...	28.56	28.38	28.23	28.71

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	28.80	29.30	29.54	...	27.80	27.76	27.14	26.48	26.40	26.73	27.42	28.18
10	29.15	29.13	...	...	27.58	27.78	26.88	26.39	26.43	26.88	27.58	28.33
15	29.40	29.20	...	27.78	27.76	27.15	26.90	26.45	26.50	26.94	27.69	28.38
20	29.20	29.39	...	27.92	27.69	27.26	26.70	26.33	...	27.10	27.80	28.55
25	29.30	29.67	...	27.76	27.65	27.25	26.63	26.28	...	27.29	27.99	28.60
Eom	29.25	29.61	...	27.73	27.70	27.12	26.69	26.38	...	27.32	28.04	28.65

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	28.72	29.30	29.70	29.59	29.00	28.80	28.82	28.48	28.55	28.67	29.24	29.70
10	28.90	29.49	29.70	29.27	28.90	28.90	28.87	28.42	28.43	28.75	29.36	29.62
15	28.95	29.34	29.85	29.05	28.91	28.84	28.69	28.41	28.51	28.89	29.40	29.65
20	29.05	29.60	29.82	29.07	28.95	28.85	28.70	28.49	28.50	28.99	29.45	29.65
25	29.08	29.65	29.86	29.05	28.88	28.94	28.60	28.41	28.55	29.11	29.48	29.66
Eom	29.11	29.80	29.69	28.86	28.80	28.76	28.41	28.47	28.60	29.22	29.57	29.71

MIDDLESEX COUNTY

373809076342501. Local number 58K1. Town of Urbanna. Virginia State Water Control Board well 31. Drilled unused artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), depth 552 ft (168 m), screen depth unknown. Lsd 20 ft (6.1 m) above msl. MP top of casing, 0.80 ft (0.244 m) above lsd. Highest water level 44.33 ft (13.512 m), May 16, 1970; lowest 55.80 ft (17.008 m), Oct. 29, 1973. Records available: 1970-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period May to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	45.05	46.20	47.20	47.64
10	...	...	...	...	...	...	...	...	45.07	46.30	47.22	47.59
15	...	...	...	...	...	...	...	44.35	45.68	46.46	47.58	47.83
20	...	...	...	...	...	...	...	44.57	46.12	46.75	47.51	47.96
25	...	...	...	...	...	...	...	44.72	46.25	46.93	47.49	48.20
Eom	...	...	...	...	...	...	...	45.06	46.18	47.0)	47.59	48.38

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	48.44	...	50.21	48.95	48.32	48.80	47.73	46.43	46.18	47.97	49.67	51.23
10	...	...	50.23	48.58	48.22	48.70	...	46.31	46.36	48.72	49.60	51.40
15	...	...	50.12	48.20	48.28	48.10	...	46.36	46.40	48.93	49.67	51.27
20	...	...	50.25	48.47	48.70	48.42	...	46.16	47.01	49.31	50.11	51.60
25	...	...	49.72	48.30	48.75	48.30	...	46.51	47.32	...	50.51	51.76
Eom	...	...	49.39	48.30	48.48	47.80	...	46.06	47.77	...	50.95	51.49

MIDDLESEX COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	51.28	51.34	51.37	51.14	51.01	51.10	...	51.30	51.35	51.52	52.50	...
10	51.62	51.34	51.29	50.87	51.20	51.71	...	50.87	51.60	51.58	52.80	52.66
15	51.45	51.25	51.49	50.94	51.19	51.31	...	50.88	51.62	51.77	52.70	52.75
20	51.02	51.36	51.45	51.23	51.03	51.57	...	50.72	51.20	52.10	...	52.91
25	50.76	51.41	51.53	50.97	50.67	51.62	...	51.00	50.60	52.33	52.75	52.75
Eom	51.01	51.30	51.19	50.63	50.68	51.31	...	51.15	51.05	52.42	52.83	...

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	52.00	...	...	51.03	51.50	50.76	50.54	50.80	51.37	52.73	53.90
10	...	52.30	...	50.87	51.18	51.63	50.71	50.33	51.14	51.74	52.90	54.14
15	...	52.20	...	51.43	51.47	51.48	50.90	50.53	51.10	52.07	53.10	53.83
20	...	52.10	...	51.03	52.02	51.74	50.52	50.42	51.10	52.15	53.27	53.76
25	...	52.40	...	50.84	51.80	50.87	50.40	50.17	51.20	52.30	53.37	53.70
Eom	...	52.80	...	51.06	51.47	51.00	50.40	50.67	50.96	52.52	53.60	53.74

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	54.42	55.00	54.81	54.14	53.53	53.10	51.60	...	...	53.64	53.72	53.42
10	54.50	55.20	54.50	54.12	53.17	52.60	51.81	...	...	53.48	53.40	53.28
15	54.67	55.02	54.70	54.01	53.32	52.52	52.42	...	53.23	53.63	53.40	53.43
20	55.25	54.97	54.88	53.85	53.30	52.42	52.69	...	53.34	53.87	53.33	53.31
25	55.35	54.58	54.63	53.95	53.53	52.10	52.76	...	53.08	53.60	53.55	53.17
Eom	55.42	55.07	53.92	53.69	53.50	51.47	52.74	...	53.32	53.58	53.42	52.93

MONTGOMERY COUNTY

370812080261901. Local number 27F2. Town of Christiansburg. Virginia State Water Control Board well 19. Drilled water-table (?) well in Beekmantown Formation of Early Ordovician age, diam 10 in (25 cm), depth 450 ft (137 m), length of casing unknown. Lsd 1970 ft (600 m) above msl. MP top of casing, 1.6 ft (0.49 m) below lsd. Highest water level 2.50 ft (0.762 m), Feb. 8, 1973; lowest 7.30 ft (2.225 m), Dec. 5, 1969. Records available: 1969-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period April to September, 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	5.14	5.88	...	6.60	6.80	6.54
10	...	...	...	...	...	...	5.17	5.92	...	6.28	6.90	6.57
15	...	...	...	...	...	...	5.38	6.17	...	6.35	7.01	6.79
20	...	...	...	...	...	...	5.45	6.10	...	6.45	6.70	6.52
25	...	...	...	...	...	...	5.57	6.41	...	6.58	6.88	6.28
Eom	...	...	...	...	...	...	5.81	6.59	...	6.78	6.96	6.57

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	6.70	6.79	7.30	5.48	5.57	5.74	5.84	6.01	6.65	6.76	5.85	5.92
10	6.75	6.96	7.20	5.78	5.19	5.91	6.09	6.34	6.71	6.60	5.30	6.02
15	6.81	7.00	6.77	5.99	5.54	6.12	6.24	6.50	6.70	6.80	5.20	6.27
20	6.87	7.16	6.99	5.42	5.40	5.98	6.28	6.60	6.85	6.87	5.35	6.30
25	7.04	7.19	7.12	5.68	5.38	6.08	6.49	6.54	6.82	5.98	5.27	6.45
Eom	7.01	7.13	5.05	5.28	5.68	6.30	6.29	6.70	6.70	5.70	5.72	6.50

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	6.78	6.17	6.83	6.12	6.10	4.01	5.40	5.29	3.67	...	4.20	5.47
10	6.82	6.60	6.93	6.30	5.20	4.34	4.57	4.74	3.83	4.30	4.45	5.51
15	6.85	6.30	6.99	6.13	4.38	4.50	4.77	4.07	3.79	4.36	4.78	5.62
20	6.91	6.42	6.92	6.52	4.40	4.68	4.95	4.15	3.62	4.45	5.09	5.31
25	6.83	6.78	6.30	6.11	4.40	5.26	5.15	4.37	3.81	4.82	5.22	5.07
Eom	6.37	6.84	6.76	6.32	4.58	5.17	5.12	3.51	...	4.62	5.40	5.30

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.43	3.80	4.30	4.87	3.92	2.90	4.14	3.18	4.53	3.24	...	5.40
10	5.14	3.91	4.10	4.90	3.97	3.22	3.45	3.45	4.90	3.80	...	5.72
15	5.60	4.27	4.32	5.30	3.60	3.30	2.68	3.30	5.01	4.17	...	5.73
20	5.50	4.30	4.62	5.30	3.72	3.55	2.85	3.40	4.56	4.54	...	6.00
25	4.49	4.62	4.90	4.77	2.90	3.67	3.08	3.90	3.15	4.77	...	6.12
Eom	3.70	4.15	5.24	4.27	2.70	3.90	3.30	4.10	3.42	4.19	...	5.20

MONTGOMERY COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.30	5.55	4.20	2.91	2.71	...	2.80	3.20	3.61	5.08	5.45	6.03
10	5.35	4.81	4.00	3.13	2.66	...	2.67	3.28	3.83	5.31	5.39	5.93
15	5.44	4.18	3.30	3.45	2.70	...	2.99	3.77	4.29	5.47	5.41	5.99
20	5.71	3.85	3.17	3.33	3.06	...	3.14	3.95	4.26	5.22	5.10	6.16
25	5.68	4.00	2.74	3.34	3.10	...	3.26	3.75	4.60	5.30	5.47	6.43
Eom	5.63	3.93	2.95	3.67	...	...	2.94	3.24	4.92	5.60	5.90	6.45

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.80	6.03	5.90	3.64	3.54	3.70	3.00	4.38	5.13	5.70	5.97	6.30
10	5.90	6.30	5.07	3.60	3.50	3.75	3.33	4.50	5.32	5.60	6.00	5.90
15	6.05	6.16	5.18	3.47	3.60	3.64	3.57	4.60	5.57	5.92	6.35	6.19
20	6.20	6.33	5.30	3.70	3.49	3.70	3.86	4.91	5.63	6.10	6.43	6.31
25	6.32	6.20	4.54	3.60	3.33	3.64	3.98	4.90	5.80	6.00	6.50	6.36
Eom	5.85	5.89	3.95	3.37	3.37	3.54	4.24	4.91	5.55	6.00	6.58	6.60

NELSON COUNTY

374224078555601. Local number 39K1. P. D. Payne. Near Colleen. Virginia State Water Control Board well 6. Drilled unused water-table well in Lovingston (or Marshall?) Formation of Precambrian age, diam 6 in (15 cm), depth 275 ft (84 m), length of casing unknown. Lsd 785 ft (239.3 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 27.08 ft (8.254 m), June 29, 1973; lowest 35.66 ft (10.869 m), Mar. 7, 1969. Records available: 1967-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1967 to September 1968

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	34.52	34.81	34.83	34.39	34.14	...	...	...	...	...	...
10	...	34.54	34.82	34.75	34.28	34.14	...	...	...	...	...	...
15	34.42	34.69	34.82	34.72	34.23	34.15	...	...	...	...	...	...
20	34.45	34.71	34.87	34.65	34.17	34.07	...	...	...	...	...	...
25	34.44	34.75	34.82	34.58	34.15	34.08	...	...	...	...	...	...
Eom	34.46	34.83	34.78	34.54	34.17	34.06	...	...	...	...	...	...

Lowest water level for the day, from recorder graph, water year October 1968 to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	34.51	34.81	35.24	35.42	35.55	35.52	35.20	34.80	34.46	34.40	34.39	34.22
10	34.56	34.98	35.26	35.45	35.59	35.54	35.12	34.72	34.44	34.35	34.37	34.20
15	34.62	35.01	35.28	35.44	35.58	35.51	35.05	34.67	34.40	34.38	34.34	34.17
20	34.65	35.10	35.36	35.46	35.55	35.43	35.03	34.59	34.40	34.38	34.21	34.12
25	34.69	35.02	35.37	35.53	35.51	35.31	34.92	34.52	34.40	34.40	34.27	34.08
Eom	34.78	35.16	35.39	35.56	35.52	35.29	34.87	34.49	34.40	34.40	34.29	34.06

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	34.06	33.95	34.04	34.10	33.95	33.65	33.39	33.10	32.86	32.86	33.05	33.29
10	34.00	33.98	34.03	34.07	33.85	33.58	33.32	33.06	32.85	32.89	33.08	33.33
15	34.01	34.00	34.05	34.05	33.84	33.55	33.30	33.04	32.84	32.92	33.14	33.40
20	33.98	34.01	34.07	34.01	33.84	33.48	33.22	32.99	32.83	32.95	33.14	33.46
25	34.00	34.02	34.11	33.98	33.78	33.46	33.21	32.95	32.81	32.98	33.20	33.50
Eom	34.00	34.00	34.16	33.94	33.78	33.44	33.17	32.90	32.83	33.00	33.23	33.54

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	33.67	33.95	33.96	33.80	33.48	33.15	32.51	32.13	31.80	31.50	31.68	31.90
10	33.70	33.97	33.92	33.71	33.48	33.00	32.47	32.10	31.75	31.50	31.68	31.92
15	33.73	34.00	33.91	33.70	33.40	32.85	32.40	32.08	31.68	31.50	31.71	32.00
20	33.80	34.00	33.90	33.66	33.30	32.77	32.30	32.00	31.60	31.52	31.75	32.01
25	33.83	34.02	33.85	33.60	33.23	32.70	32.23	31.96	31.57	31.52	31.80	32.07
Eom	33.90	33.99	33.83	33.53	33.19	32.58	32.19	31.98	31.53	31.59	31.85	32.09

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	32.14	32.28	32.11	31.80	31.83	31.32	31.09	30.98	30.85	30.66	30.31	30.14
10	32.17	32.20	32.00	31.73	31.80	31.47	31.05	31.00	30.93	30.60	30.28	30.19
15	32.23	32.20	32.00	31.77	31.74	31.34	31.02	30.92	30.87	30.51	30.25	30.18
20	32.28	32.10	31.96	...	31.60	31.29	31.02	30.90	30.80	30.46	30.20	30.23
25	32.22	32.11	31.94	...	31.50	31.17	31.00	30.91	30.78	30.40	30.15	30.24
Eom	32.26	32.15	31.95	...	31.40	31.08	31.00	30.83	30.70	30.37	30.17	30.25

NELSON COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	30.30	30.17	29.82	29.18	28.80	28.42	27.92	27.26	27.10	27.11	27.45	27.90
10	30.34	30.12	29.71	29.11	28.70	28.37	27.76	27.20	27.10	27.14	27.51	27.99
15	30.27	30.09	29.63	29.07	...	28.30	27.67	27.17	27.12	27.21	27.60	28.11
20	30.27	30.03	29.51	29.00	...	28.28	27.50	27.10	27.15	27.27	27.64	28.19
25	30.18	29.96	29.42	28.92	28.49	28.17	27.40	27.12	27.15	27.30	27.76	28.29
Eom	30.19	29.91	29.27	28.90	28.51	28.10	27.37	27.12	27.10	27.37	27.84	28.33

Lowest water level for the day, from recorder graph, period October 1973 to June 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	28.41	28.80	29.10	29.12	28.80	28.70	28.72	28.58	28.79	...	...	...
10	28.48	28.94	29.16	29.10	28.71	28.76	28.77	28.57	28.80	...	...	...
15	28.51	28.90	29.18	28.98	28.70	28.75	28.67	28.60	28.85	...	...	...
20	28.60	...	29.27	28.95	28.74	28.77	28.67	28.66	28.90	...	...	...
25	28.65	...	29.28	28.92	28.72	28.84	28.61	28.67	29.01	...	...	...
Eom	28.68	...	29.18	28.81	28.72	28.78	28.57	28.70	...	...	...	...

NOTE.--Recorder removed June 26, 1974. Water level July 23, 1974, 29.37 ft and Sept. 4, 1974, 29.76 ft from taped measurements.

NEW KENT COUNTY

372428076561501. Local number 55H1. City of Newport News. Walkers Dam, near Walkers. Virginia State Water Control Board well 17. Drilled unused artesian well in sand of Early Cretaceous age, diam 6 to 4 in (15 to 10 cm), depth 626 ft (191 m), slotted pipe screen 252-257 ft (77-78 m), 339-344 ft (103-105 m), 439-444 ft (134-135 m), 615-625 ft (187-190 m). Lsd 10 ft (3.0 m) above msl. MP top of casing, 0.8 ft (0.24 m) above lsd. Highest water level 30.24 ft (9.217 m), Apr. 10, 1969; lowest 43.14 ft (13.149 m), Sept. 30, 1974. Records available: 1969-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period March to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	30.79	30.55	30.65	31.00	31.20	31.13	31.56
10	...	...	...	...	...	30.68	30.24	30.65	30.98	31.22	31.14	31.53
15	...	...	...	...	...	30.64	30.40	30.80	31.00	31.37	31.30	31.62
20	...	...	...	...	...	30.76	30.42	30.77	30.98	31.35	31.30	31.41
25	...	...	...	...	...	30.76	30.43	30.71	31.09	31.06	31.32	31.51
Eom	...	...	...	...	...	30.45	30.56	30.85	31.26	31.29	31.58	31.64

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	31.48	...	...	32.16	32.46	32.34	32.55	32.72	33.04	33.32	...	34.07
10	31.80	...	32.07	32.26	32.20	32.42	32.55	32.71	33.10	...	33.70	34.14
15	31.80	...	32.00	32.28	32.32	32.46	32.53	32.72	33.24	...	33.87	34.25
20	31.96	...	32.16	32.17	32.45	32.49	32.60	32.86	33.30	...	33.84	34.28
25	32.10	...	32.11	32.24	32.38	32.49	32.70	32.88	33.37	...	33.88	34.34
Eom	32.05	...	31.97	32.24	32.45	32.35	32.75	33.00	33.40	...	34.00	34.30

Lowest water level for the day, from recorder graph, period October 1970 to March 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	34.40	34.52	34.70	34.67	34.79	34.90	...	...	...	...	...	...
10	34.40	34.58	34.70	34.93	34.93	34.86	...	...	...	...	...	...
15	34.45	34.40	34.80	34.78	34.78	34.75	...	...	...	...	...	...
20	34.60	34.45	34.70	34.78	34.83	34.90	...	...	...	...	...	...
25	34.45	34.61	34.60	34.86	34.83	35.32	...	...	...	...	...	...
Eom	34.47	34.62	34.72	...	34.90	34.96	...	...	...	...	...	...

Lowest water level for the day, from recorder graph, period August to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	38.19
15	...	...	...	...	...	...	...	...	...	...	37.85	38.19
20	...	...	...	...	...	...	...	...	...	...	37.80	38.28
25	...	...	...	...	...	...	...	...	...	...	37.94	38.37
Eom	...	...	...	...	...	...	...	...	...	...	38.02	38.20

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	38.22	38.25	38.32	38.50	38.58	38.90	38.82	38.97	39.12	39.16	39.61	39.85
10	38.25	38.22	38.40	38.58	38.60	38.92	38.72	38.94	39.20	39.25	39.63	39.88
15	38.25	38.19	38.45	38.57	38.66	38.84	38.92	39.03	39.28	39.31	39.67	39.90
20	38.30	38.30	38.44	38.59	38.70	38.90	39.00	38.92	39.29	39.43	39.70	40.02
25	38.26	38.32	38.30	38.64	38.90	38.73	38.83	38.73	39.19	39.45	39.73	40.02
Eom	38.26	38.30	38.43	38.70	38.78	38.90	38.90	39.06	39.20	39.55	39.90	40.02

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	40.05	40.25	40.46	40.43	40.60	40.81	40.72	41.12	41.43	41.83	41.96	42.90
10	40.10	40.35	40.44	40.46	40.56	40.85	40.90	41.12	41.42	41.85	41.89	42.80
15	40.15	40.28	40.46	40.43	40.52	40.74	40.72	41.20	41.52	42.55	42.03	42.93
20	40.15	40.45	40.52	40.55	40.62	40.55	40.94	41.30	41.70	42.45	42.00	43.04
25	40.16	40.42	40.50	40.55	40.71	40.83	41.00	41.36	41.50	42.02	42.00	43.02
Eom	40.12	40.60	40.48	40.40	40.70	40.62	41.00	41.30	41.70	41.85	42.92	43.14

CITY OF NEWPORT NEWS

371027076335601. Local number 58F1. City of Newport News. Lee Hall Reservoir, Lee Hall. Virginia State Water Control Board well 2. Drilled unused artesian well in sediments of Paleocene age, diam 10 to 8 in (25 to 20 cm), depth 443 ft (135 m), screen depth unknown. Lsd 20 ft (6.1 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 54.76 ft (16.691 m), May 10, 1969; lowest 77.85 ft (23.729 m), Sept. 5, 1974. Records available: 1968-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1968 to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	56.31	56.40	56.60	56.12	55.78	55.37	54.85	56.37	57.76	58.82	59.86
10	...	56.25	56.60	56.50	55.99	55.70	55.22	54.76	56.53	57.97	59.06	60.02
15	...	56.28	56.46	56.53	56.15	55.90	55.16	54.94	56.73	58.30	59.30	60.20
20	...	56.23	56.56	56.42	56.12	55.83	54.97	55.09	56.83	59.39	59.39	60.20
25	...	56.28	56.58	56.08	56.04	55.59	54.85	55.48	57.19	59.58	59.58	59.90
Eom	...	56.36	56.60	56.18	56.07	55.58	54.84	55.88	57.55	59.78	59.78	59.87

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	59.72	58.72	58.76	58.44	58.24	58.25	58.47	58.68	...	...	63.12	64.10
10	59.59	58.70	58.66	58.26	58.06	58.23	58.48	58.76	...	...	63.23	64.34
15	59.33	58.63	58.44	58.33	58.20	58.30	58.55	58.94	...	62.07	63.33	64.29
20	59.20	58.60	58.62	58.29	58.22	58.40	58.57	59.04	...	62.35	63.33	64.10
25	59.19	58.69	58.60	58.33	58.19	58.37	58.68	59.25	...	62.49	63.55	63.95
Eom	59.05	58.60	58.40	58.28	58.36	58.42	58.71	59.52	...	62.78	63.79	63.70

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	63.58	62.83	61.79	60.86	60.56	60.04	60.20	60.65	61.24	63.51	65.05	66.03
10	63.38	62.90	61.60	60.75	60.41	60.10	60.20	60.68	61.72	63.82	65.21	66.18
15	63.21	62.58	61.49	60.68	60.24	60.04	60.27	60.78	62.00	64.02	65.40	66.21
20	63.20	62.49	61.25	60.65	60.24	60.00	60.32	60.77	62.30	64.30	65.43	66.47
25	63.10	62.22	61.10	60.53	60.20	60.17	60.41	60.85	62.64	64.56	65.67	66.64
Eom	63.12	62.08	61.07	60.51	60.16	60.04	60.58	60.87	63.09	64.83	65.80	66.62

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	66.25	65.49	64.88	64.70	64.76	64.98	65.12	65.29	66.28	67.64	69.11	70.35
10	65.91	65.38	64.80	64.77	64.85	65.27	65.12	65.38	66.57	68.00	69.41	70.55
15	65.89	65.37	64.73	64.80	64.72	65.17	65.10	65.41	66.76	68.15	69.61	70.74
20	65.86	65.20	64.69	64.79	64.80	65.25	65.20	65.56	66.99	68.56	69.82	71.00
25	65.51	65.22	64.72	64.80	64.81	65.19	65.16	65.68	67.08	68.84	70.09	70.67
Eom	65.53	65.00	64.77	64.78	64.88	65.10	65.34	65.80	67.27	68.97	70.30	70.42

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	70.50	69.95	69.67	68.86	68.63	68.96	69.05	69.78	70.59	72.70	74.20	75.21
10	...	69.78	69.65	68.88	68.64	69.01	69.09	69.97	70.97	73.08	74.55	75.30
15	...	69.72	69.50	68.84	...	69.03	69.38	70.17	71.42	73.39	74.67	75.18
20	...	69.63	69.36	68.80	68.77	69.15	69.50	70.18	71.85	73.69	74.81	75.13
25	...	69.68	69.16	68.79	68.94	69.17	69.51	70.15	72.20	73.87	74.82	75.03
Eom	...	69.72	69.03	68.74	69.00	69.17	69.62	70.30	72.40	73.99	75.00	74.90

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	74.73	74.75	74.37	73.77	73.23	72.78	72.70	73.24	74.39	75.92	77.22	77.85
10	74.75	74.75	74.18	73.65	73.02	72.86	72.73	73.24	74.59	76.22	77.24	77.63
15	74.72	74.60	74.10	73.58	72.94	72.80	72.73	73.37	74.87	76.56	77.37	77.54
20	74.80	74.68	74.04	73.52	72.75	72.75	73.00	73.69	75.20	76.70	77.38	77.42
25	74.80	74.50	74.00	73.47	72.70	72.90	73.04	73.89	75.23	76.82	77.40	77.20
Eom	74.66	74.50	73.87	73.27	72.78	72.70	73.10	74.09	75.51	77.07	77.70	76.87

CITY OF NORFOLK

365223076122101. Local number 61C1. City of Norfolk. Moore's Bridge Filter Plant. U.S. Geological Survey test well 1. Drilled observation artesian well in sand of Early Cretaceous age, diam 6 in (15 cm), depth 970 ft (296 m), screened 900-960 ft (274-293 m). Lsd 10.80 ft (3.292 m) above msl. MP top edge of recorder shelf, 4.0 ft (1.22 m) above lsd. Highest water level 13.70 ft (4.176 m), Feb. 17, 1968; lowest 36.62 ft (11.162 m), Nov. 4, 5, 1973. Records available: 1968-74. Water level affected by pumping and recharge operations in nearby wells May 18, 1971, to Nov. 5, 1973.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 22, 1968	14.86	Sept. 9, 1968	16.05	Apr. 8, 1969	19.25	July 15, 1969	20.35
Feb. 14	16.75	12	16.10	14	19.40	19	20.35
17	13.70	Oct. 7	16.50	20	19.50	31	20.20
19	14.00	15	16.75	May 5	19.56	Aug. 4	20.30
July 25	14.00	21	16.50	12	19.76	11	20.35
31	15.55	25	16.50	26	19.80	19	20.45
Aug. 7	15.70	30	16.70	June 3	19.83	25	20.60
12	15.70	Nov. 14	16.95	9	19.95	Sept. 5	20.95
21	15.75	Feb. 25, 1969	18.40	24	20.05	11	21.00
29	16.00	Mar. 16	18.99	30	20.25	26	20.85
Sept. 5	16.05	20	18.85	July 9	20.25	30	20.96

CITY OF NORFOLK--Continued

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	20.98	21.23	21.73	21.96	...	...	22.65	22.86	23.57	...	23.85	24.13
10	21.03	21.29	21.72	21.96	...	...	...	22.97	23.55	23.63	23.92	24.23
15	21.05	21.44	21.71	22.08	22.23	22.44	...	...	23.62	23.65	24.01	24.30
20	21.20	21.53	21.85	...	22.33	22.58	22.70	...	23.60	23.71	24.01	24.35
25	21.36	21.66	21.85	...	22.28	22.53	22.82	...	...	23.75	24.03	24.42
Eom	21.37	21.58	21.82	...	22.45	22.59	22.92	23.70	...	23.77	24.11	24.37

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	24.49	...	25.13	25.38	25.76	26.16	26.69	27.07	27.43	27.83	28.17	28.42
10	24.55	...	25.24	25.40	25.90	26.28	26.74	27.13	27.85	27.87	28.22	28.42
15	24.55	24.69	25.32	25.42	25.90	26.30	26.78	27.22	27.95	27.87	28.26	28.58
20	24.72	24.84	25.31	25.59	26.00	26.36	26.82	27.27	27.62	27.98	28.35	28.51
25	24.59	25.00	25.23	25.60	26.03	26.59	26.85	27.33	27.63	28.06	28.38	28.58
Eom	...	25.03	25.38	25.67	26.05	26.55	26.99	27.29	27.79	28.11	28.34	28.56

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	28.32	28.63	28.90	28.96	29.33	29.37	...	...	29.82	30.13	30.07	30.88
10	28.37	28.62	28.78	29.00	29.35	...	29.77	29.93	29.75	30.08	30.14	30.90
15	...	28.71	28.86	29.08	...	29.90	...	...	29.85	29.99	30.18	...
20	28.54	28.68	28.92	29.10	...	29.77	...	...	29.82	30.04	30.21	31.06
25	28.40	28.77	28.97	29.16	...	...	...	29.78	29.79	30.02	31.70	30.85
Eom	28.53	28.77	29.01	29.18	...	...	...	29.82	...	30.06	...	31.08

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	30.81	28.60	28.12	28.71	30.74	...	33.75	34.83	35.04	35.42	35.97
10	31.35	30.77	28.74	28.33	28.90	30.87	31.10	33.96	34.86	35.14	35.55	36.04
15	...	30.76	30.04	28.44	28.87	30.92	31.38	34.17	34.76	35.18	35.41	...
20	...	...	28.51	28.32	29.18	31.01	31.43	34.31	35.06	35.33	35.64	36.14
25	...	29.72	28.37	28.38	29.34	30.93	31.35	34.32	34.69	35.49	...	36.19
Eom	30.89	29.24	28.66	28.58	30.61	...	31.70	34.61	34.93	35.24	35.90	36.18

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	36.22	36.62	33.39	33.27	33.46	33.65	33.67	34.07	...	...	34.50	34.82
10	36.29	...	33.26	33.24	33.41	33.72	33.84	34.04	...	...	34.41	34.62
15	36.42	33.65	33.26	33.34	33.53	33.74	33.80	...	34.35	...	34.50	34.65
20	36.54	33.62	33.32	33.38	...	33.70	34.01	...	34.42	...	34.58	34.70
25	36.53	33.47	33.34	33.42	33.52	33.83	33.99	...	34.22	...	34.59	34.77
Eom	36.49	33.50	33.24	...	33.63	33.63	34.01	...	34.29	34.47	34.67	...

ORANGE COUNTY

381002078094201. Local number 45P1. M. L. Johnson. Gordonsville. Virginia State Water Control Board well 30. Drilled unused water-table well in phyllite of Evington Group of Cambrian or Precambrian age, diam 6 in (15 cm), depth 98 ft (30 m), length of casing unknown. Lsd 480 ft (146 m) above msl. MP top of casing, 0.3 ft (0.09 m) above lsd. Highest water level 11.83 ft (3.606 m), Apr. 10, 1973; lowest 35.90 ft (10.942 m), Jan. 31, 1966. Records available: 1965-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period February to September 1965

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	22.00	20.62	21.45	...	27.25	29.07	30.90
10	...	...	...	...	...	20.88	20.90	21.90	...	27.69	29.37	31.11
15	...	...	...	...	...	21.55	20.25	22.70	...	27.88	29.71	31.29
20	...	...	...	...	23.77	21.78	20.58	...	...	28.40	30.06	31.42
25	...	...	...	...	23.70	21.72	21.10	...	...	28.61	30.36	31.75
Eom	...	...	...	...	22.70	20.55	21.20	...	...	29.13	30.55	31.90

Lowest water level for the day, from recorder graph, water year October 1965 to September 1966

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	32.22	33.25	34.29	35.33	...	...	...	...	24.28	26.77	...	...
10	31.98	33.40	34.51	35.42	...	26.21	...	...	24.73	27.30	...	...
15	32.22	33.58	34.67	35.50	32.26	26.03	...	...	25.33	27.64	...	...
20	32.50	33.72	34.88	35.69	30.09	26.24	...	...	...	28.12	...	...
25	32.76	33.98	35.02	35.78	28.90	26.41	...	...	26.37	28.38	...	...
Eom	32.88	34.17	35.18	35.90	28.60	26.50	...	...	26.65	...	...	...

Lowest water level for the day, from recorder graph water year October 1966 to September 1967

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	20.93	...	...	...	...	23.48	25.95	...	...
10	...	...	...	19.55	...	...	...	...	23.65	26.19	...	...
15	...	...	...	...	...	...	...	...	23.92	26.46	...	...
20	...	...	...	...	...	...	...	...	24.38	26.88	...	...
25	...	...	23.08	18.84	...	...	...	...	...	27.05	...	...
Eom	...	...	22.51	...	...	...	...	...	25.22	27.51	...	...

ORANGE COUNTY--Continued

Lowest water level for the day, from recorder graph, period March to September 1968

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	19.05	22.53	24.00	24.74	26.98	28.59
10	...	...	...	...	...	...	19.60	23.05	24.23	24.98	27.17	28.78
15	...	...	...	...	...	...	20.00	23.42	23.60	25.40	27.56	29.31
20	...	...	...	...	...	...	20.70	23.80	23.75	25.78	28.02	29.63
25	...	...	...	...	...	...	21.33	24.48	24.11	26.40	28.27	29.81
Eom	...	...	...	...	...	18.00	21.84	23.61	24.69	26.82	28.25	30.16

Lowest water level for the day, from recorder graph, water year October 1968 to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	30.47	31.87	27.20	27.28	25.00	22.24	19.65	22.70	25.30	23.20	21.99	21.90
10	30.65	31.95	27.40	27.48	24.69	20.18	20.40	...	25.50	23.89	21.60	22.36
15	31.01	29.50	27.31	28.00	24.10	20.22	21.26	23.90	24.55	24.55	21.88	23.16
20	31.08	27.71	27.72	28.15	23.90	20.36	21.85	24.06	...	24.89	21.92	23.80
25	31.20	27.20	27.38	25.51	23.20	20.20	21.94	24.48	...	23.60	19.90	23.59
Eom	31.62	27.36	27.30	25.25	...	19.52	22.40	24.93	...	22.44	21.17	24.20

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	24.57	26.09	28.45	...	...	18.45	16.06	...	21.88	25.22	26.66	28.70
10	24.56	26.86	...	...	17.58	18.95	16.00	...	22.45	25.62	27.00	29.08
15	24.91	27.30	...	21.91	17.37	19.70	...	...	23.17	26.70	27.50	29.46
20	25.20	27.56	...	...	17.00	19.79	...	...	23.60	26.53	27.64	29.76
25	25.88	27.83	...	...	16.85	18.04	...	...	24.05	25.96	28.04	30.08
Eom	26.01	27.82	...	...	18.21	17.36	...	...	24.66	26.10	...	30.33

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	30.82	...	...	25.52	22.85	17.52	17.85	20.02	15.62	19.30	23.37	...
10	31.10	...	28.06	23.45	21.03	17.47	16.24	21.00	16.82	20.06	23.64	...
15	31.47	...	28.34	23.07	19.48	17.90	16.38	19.03	17.37	20.61	24.21	...
20	...	...	27.07	...	...	18.22	17.09	16.61	16.67	21.50	24.63	...
25	...	...	26.10	...	...	18.49	18.20	16.98	17.70	22.03	24.81	...
Eom	...	...	25.92	...	...	17.67	19.24	16.22	18.90	22.90	24.50	...

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	22.29	19.44	20.14	17.80	...	17.12	15.08	17.55	17.73	20.85	23.89
10	25.10	22.44	17.71	19.42	17.11	...	17.46	15.72	18.77	18.68	21.12	24.56
15	24.30	23.13	17.80	19.40	15.75	...	17.00	15.60	19.60	18.91	21.73	24.92
20	24.70	23.22	18.55	18.80	15.06	...	17.12	15.48	20.28	19.77	22.23	25.60
25	23.35	23.70	19.17	18.84	14.08	...	15.62	15.85	16.38	20.41	22.79	26.00
Eom	21.64	19.47	19.94	18.67	13.62	16.13	15.70	16.07	16.53	21.13	23.50	26.20

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	26.67	20.06	15.32	13.47	...	...	12.40	13.32	18.25	22.38	25.01	25.72
10	23.18	18.80	14.42	13.57	...	...	11.83	14.47	19.05	22.86	25.26	26.13
15	23.09	17.65	14.20	...	...	13.95	12.52	16.18	19.94	23.31	25.68	26.41
20	23.61	16.70	13.95	...	...	13.64	13.40	17.09	20.74	23.76	25.02	26.74
25	23.34	16.05	13.50	...	...	13.31	14.14	17.99	21.25	24.20	24.92	27.12
Eom	21.16	...	14.00	...	...	12.90	12.73	17.65	21.93	24.62	25.43	27.34

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	25.23	27.11	27.84	18.50	18.30	19.80	17.30	19.46	21.30	23.74	25.99	24.21
10	25.36	27.17	24.47	18.64	18.69	20.46	16.70	18.93	20.42	24.00	26.00	22.49
15	25.68	27.03	22.92	18.34	19.42	20.42	16.77	20.80	21.40	24.44	25.40	22.79
20	26.19	27.50	22.80	18.95	19.91	20.14	18.10	20.17	22.23	25.05	25.67	23.22
25	26.53	27.56	20.64	17.71	19.62	19.06	19.03	20.64	22.74	25.50	24.77	23.74
Eom	26.66	27.90	19.01	17.20	19.65	18.10	19.63	21.59	23.27	25.87	24.88	24.37

PRINCE GEORGE COUNTY

370221077234101. Local number 51E1. Prince George County School Board, Carson Elementary School. Carson. Virginia State Water Control Board well 41. Drilled unused artesian well in sediments of Miocene age, diam 4 in (10 cm), depth 126 ft (38 m), screen depth unknown. Lsd 154.18 ft (46.994 m) above msl. MP top of iron beam, 2.00 ft (0.610 m) below lsd. Highest water level 48.09 ft (14.658 m), July 6, 1972; lowest 59.30 ft (18.075 m), Jan. 7, 1971. Records available: 1971-74. Records furnished by the Virginia State Water Control Board.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 7, 1971	59.30	Jan. 5, 1972	54.58	Feb. 6, 1973	51.75	Feb. 12, 1974	53.78
Feb. 3	51.05	Feb. 3	54.43	Mar. 6	51.47	Mar. 5	53.96
Mar. 8	54.00	Mar. 13	52.85	Apr. 11	51.39	Apr. 4	53.03
Apr. 5	51.58	May 2	52.82	May 1	51.42	May 3	53.04
May 5	49.31	June 1	52.88	June 7	52.00	June 3	53.95
June 3	49.13	July 6	48.09	July 5	52.82	July 2	54.92
July 6	50.14	Aug. 7	50.52	Aug. 8	54.44	Aug. 1	55.34
Aug. 12	50.62	Sept. 11	53.90	Sept. 5	54.92	Sept. 5	55.19
Sept. 10	54.02	Oct. 4	53.96	Oct. 10	55.92		
Oct. 6	53.96	Nov. 9	52.21	Nov. 8	54.00		
Nov. 4	53.52	Dec. 13	51.57	Dec. 7	54.04		
Dec. 1	54.37	Jan. 11, 1973	51.08	Jan. 16, 1974	54.56		

PRINCE WILLIAM COUNTY

384930077420801. Local number 49U1. Virginia Dept. of Highways and Transportation. North of State Highway 55 near Thoroughfare Gap, 3.7 mi (6.0 km) west of Haymarket. Drilled observation artesian well in shale and sandstone of Newark Group of Triassic age, diam 7 in (18 cm), depth 345 ft (105 m), cased to 20 ft (6 m), open hole 20-345 ft (6-105 m). Lsd 383 ft (116.7 m) above msl. MP top of casing, 2.0 ft (0.61 m) above lsd. Highest water level 2.89 ft (0.881 m), Feb. 26, 1972; lowest 10.22 ft (3.115 m), Nov. 8, 9, 1968. Records available: 1968-74.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	5.49	6.78	6.30	3.96	4.74	5.21	4.17	5.56	4.88	6.04	7.69	5.96
10	5.63	6.84	5.66	4.35	4.92	5.35	3.87	5.48	5.03	6.27	7.75	4.92
15	5.79	6.34	5.52	3.95	5.14	5.35	4.14	4.75	5.70	6.68	7.88	5.38
20	6.27	6.73	5.66	4.53	5.29	5.49	4.75	5.08	5.87	7.18	7.45	5.89
25	6.43	6.52	4.55	4.05	5.19	5.53	5.10	5.07	5.71	7.39	6.76	6.34
Eom	6.43	6.76	4.16	4.16	5.24	4.38	5.21	5.50	5.64	7.64	6.66	6.69

385607077381101. Local number 49V1. J. H. Hutchison. North of Haymarket at intersection of State Highways 600 and 615. Drilled observation artesian well in shale and sandstone of Newark Group of Triassic age, diam 7 in (18 cm), depth 165 ft (50 m), cased to 10 ft (3 m), open hole 10-165 ft (3-50 m). Lsd 420 ft (128.0 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 7.54 ft (2.298 m), Feb. 28, 1972; lowest 12.28 ft (3.743 m), July 12, 13, 1970. Records available: 1968-74.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	10.17	10.13	8.07	8.76	9.24	8.23	...	9.49	10.05	e10.81	8.61
10	...	10.14	9.29	8.33	8.85	9.32	...	...	9.60	10.15	e10.74	8.11
15	...	10.02	8.85	8.02	8.68	9.42	8.32	...	9.96	10.33	e10.67	8.88
20	...	10.25	9.07	8.52	8.66	9.57	9.03	...	9.98	10.57	e10.32	9.41
25	...	10.26	8.18	7.99	8.95	9.49	...	9.72	9.80	10.67	e9.91	9.68
Eom	9.79	10.24	7.99	8.16	9.10	8.82	...	9.95	9.80	10.75	9.46	9.92

e Estimated.

383634077151301. Local number 52S4. District of Columbia Dept. of Sanitary Engineering. Featherstone test well 1. Woodbridge. Drilled observation artesian well in sand and gravel of Early Cretaceous age, diam 10 in (25 cm), depth 186 ft (57 m), screened 156-176 ft (48-54 m). Lsd 28 ft (8.5 m) above msl. MP top edge of recorder shelf, 3.3 ft (1.01 m) above lsd. Highest water level 17.17 ft (5.233 m), Apr. 28, 1973; lowest 20.05 ft (6.111 m), June 30, 1969. Records available: 1969-74.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	18.23	18.68	18.48	18.43	18.40	18.37	18.02	18.28	18.06	18.30	18.42	18.54
10	18.21	18.81	18.21	18.30	18.22	18.39	18.42	17.99	18.14	18.30	18.46	18.29
15	18.29	18.50	18.36	18.32	18.30	18.56	18.25	18.07	18.17	18.36	18.36	18.47
20	18.50	18.66	18.73	18.23	18.13	18.61	18.37	18.26	18.18	18.41	18.37	18.38
25	18.34	18.35	18.71	18.26	18.58	18.49	18.49	18.14	18.09	18.31	18.47	18.61
Eom	17.93	18.61	18.35	18.27	18.63	18.01	18.22	18.04	18.04	18.27	18.53	18.52

383634077151302. Local number 52S5. District of Columbia Dept. of Sanitary Engineering. Featherstone test well 2. Woodbridge. Drilled observation artesian well in sand and gravel of Early Cretaceous age, diam 6 in (15 cm), depth 114 ft (35 m), screened 95-105 ft (29-32 m). Lsd 28 ft (8.5 m) above msl. MP top of casing, 2.2 ft (0.67 m) above lsd. Highest water level 16.79 ft (5.118 m), June 7, 1973; lowest 18.96 ft (5.779 m), July 1, 1969. Records available: 1969-74.

Date	Water level	Date	Water level	Date	Water level
Nov. 2, 1973	17.40	Mar. 5, 1974	17.18	July 16, 1974	17.27
Dec. 13	18.27	Apr. 16	17.11	Aug. 20	17.47
Jan. 24, 1974	17.37	May 29	17.02		

PULASKI COUNTY

370516080411501. Local number 25E2. Town of Dublin. Virginia State Water Control Board well 59. Drilled unused water-table well in Conococheague Formation of Late Cambrian age, diam 4 in (10 cm), depth 370 ft (113 m), length of casing unknown. Lsd 2,170 ft (661.4 m) above msl. MP top of recorder shelf, 2.23 ft (0.680 m) above lsd. Highest water level 60.00 ft (18.288 m), Mar. 18, 1973; lowest 81.89 ft (24.960 m), Sept. 30, 1974. Records available: 1972-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period April to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	70.95	77.95	72.82	70.08	79.10
10	...	...	...	...	...	...	...	68.19	78.44	74.87	74.62	79.30
15	...	...	...	...	...	...	70.15	67.96	78.82	76.52	76.63	79.52
20	...	...	...	...	...	...	72.95	66.65	75.05	77.62	77.74	79.74
25	...	...	...	...	...	...	74.03	66.17	71.42	78.24	78.30	79.78
Eom	...	...	...	...	...	...	76.05	65.50	72.26	77.85	78.82	77.10

PULASKI COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	77.20	79.05	77.23	74.20	69.99	77.80	71.84	72.53	...	78.40	...	79.35
10	76.58	77.02	76.79	75.84	72.57	77.78	71.05	74.40	...	78.80	79.23	79.72
15	78.18	73.09	72.90	77.11	74.20	78.09	73.43	76.02	...	79.00	79.00	79.80
20	78.62	75.00	73.47	77.51	75.70	65.22	75.03	...	...	...	78.90	80.02
25	79.12	76.00	71.48	77.12	76.91	71.12	75.93	...	77.35	...	79.07	80.20
Eom	78.91	75.32	75.08	76.81	77.40	71.83	66.49	...	78.00	...	79.52	80.29

Lowest water level for the day, from recorder graph, period October 1973 to July 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	78.62	79.34	79.14	70.43	73.98	76.73	76.81	78.53	78.45	79.08	...	...
10	78.56	79.70	77.61	73.00	75.60	77.45	72.73	78.63	78.97	79.42	...	...
15	79.33	80.00	76.22	73.90	76.48	76.91	75.65	77.15	79.22	79.72	...	...
20	79.70	80.28	78.08	76.15	72.36	77.37	...	78.37	78.82	79.71	...	...
25	79.97	80.16	73.50	74.25	73.40	74.68	...	78.54	79.11	...	...	...
Eom	79.13	77.20	72.45	73.34	75.25	76.34	...	78.49	78.13	...	...	...

NOTE.--Recorder removed July 21, 1974. Water levels for Aug. 27, 1974, 80.50 ft, and Sept. 30, 1974, 81.89 ft, from taped measurements.

ROANOKE COUNTY

371653079552101. Local number 31G1. Nelson-Roanoke Corp. Roanoke. Virginia State Water Control Board well 8. Drilled unused water-table well in Rome (previously reported Elbrook) Formation, diam 6 in (15 cm), depth 48 ft (15 m), length of casing unknown. Lsd about 917 ft (279.5 m) above msl. MP top of casing, 0.9 ft (0.27 m) above lsd. Highest water level 14.97 ft (4.563 m), June 22, 1972; lowest 19.26 ft (5.870 m), Aug. 20, 1968. Records available: 1966-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period October 1973 to July 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	17.33	17.78	17.76	17.08	17.31	17.43	17.26	17.80	17.74	17.73	...	...
10	17.53	17.82	17.40	17.24	17.37	17.49	17.40	17.80	17.82	17.79	...	...
15	17.70	17.84	17.54	17.30	17.42	17.37	17.53	17.71	17.70	17.87	...	...
20	17.79	17.89	17.57	17.43	17.32	17.60	17.65	17.73	17.78	17.81	...	...
25	17.86	17.89	17.15	17.12	17.25	17.48	17.73	17.80	17.85	...	...	...
Eom	17.72	17.79	17.14	17.10	17.32	17.51	17.77	17.80	17.55	...	...	...

NOTE.--Recorder removed July 21, 1974. Water levels for Aug. 27, 1974, 18.70 ft, and Sept. 30, 1974, 15.93 ft, from taped measurements.

ROCKBRIDGE COUNTY

373758079271601. Local number 35K1. Town of Glasgow. Virginia State Water Control Board well 63. Drilled unused water-table well in Rome Formation of Cambrian age, diam 6 in (15 cm), depth 695 ft (212 m), length of casing unknown. Lsd 745 ft (227.1 m) above msl. MP top of casing, 2.0 ft (0.61 m) above lsd. Highest water level 15.92 ft (4.852 m), July 8, 1972; lowest 24.45 ft (7.452 m), Nov. 30, 1973. Records available: 1972-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period June to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	20.49	16.64	17.39	21.34
10	...	...	...	...	...	...	...	...	20.73	16.08	18.28	21.80
15	...	...	...	...	...	...	...	...	21.21	16.34	19.03	22.00
20	...	...	...	...	...	...	...	...	20.07	17.04	19.70	22.23
25	...	...	...	...	...	...	...	...	16.88	17.98	20.31	22.50
Eom	...	...	...	...	...	...	...	...	17.27	17.43	20.98	21.79

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	21.70	21.05	18.59	17.96	17.21	18.83	17.17	18.36	19.88	21.80	22.73	23.53
10	19.34	20.48	18.27	18.51	16.78	18.80	16.60	18.80	20.28	22.05	22.90	23.66
15	19.60	19.68	17.88	19.15	17.08	19.10	17.21	19.47	20.68	22.20	22.98	23.74
20	20.26	19.16	17.60	19.60	17.70	18.51	17.88	19.85	21.00	22.17	23.01	23.89
25	20.56	18.65	16.96	19.00	18.40	18.30	18.37	20.33	21.27	22.40	23.22	24.10
Eom	20.29	18.27	17.54	19.00	18.83	17.61	18.02	19.51	21.64	22.60	23.44	24.20

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	23.75	23.92	24.44	19.76	19.85	21.23	20.96	21.74	22.57	23.48	23.80	24.30
10	23.72	24.05	23.67	19.95	20.33	21.53	20.65	21.94	22.64	23.59	23.82	23.23
15	23.79	24.03	23.28	19.78	20.75	21.25	20.69	21.86	22.82	23.79	24.03	23.31
20	24.02	24.29	23.22	20.40	21.10	21.30	21.10	22.12	23.01	24.02	24.17	23.50
25	24.19	24.36	21.36	19.56	20.94	21.22	21.20	22.30	23.16	24.20	24.27	23.70
Eom	23.90	24.45	20.20	19.19	21.00	21.12	21.38	22.60	23.30	23.72	24.35	23.97

ROCKINGHAM COUNTY

382150078424001. Local number 41Q1. Virginia Dept. of Highways and Transportation. McGaheysville. Drilled observation artesian well in Conococheague Limestone of Late Cambrian age, diam 6 1/4 in (16 cm), depth 310 ft (94 m), cased to 131 ft (40 m), open hole 131-310 ft (40-94 m). Lsd 1,105 ft (336.8 m) above msl. MP top edge of recorder shelf, 3.5 ft (1.07 m) above lsd. Highest water level 60.38 ft (18.404 m), Dec. 26, 1972; lowest 81.70 ft (24.902 m), Oct. 30, 31, 1970. Records available: 1970-74.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	69.26	70.24	69.68	64.84	64.06	65.44	...	66.70	67.31	68.43	70.96	74.22
10	*69.58*	*69.90*	*69.15*	*65.20*	*64.30*	*65.60*	...	66.93	67.40	68.69	71.48	74.65
15	69.88	69.58	68.59	64.46	64.65	...	...	66.93	67.64	68.98	*71.96*	*75.11*
20	70.24	69.45	68.50	64.77	64.89	...	66.28	67.00	67.85	69.39	72.47	75.64
25	70.38	69.48	66.44	63.85	65.10	...	66.40	67.15	68.04	69.87	72.96	76.25
Eom	70.46	69.63	64.52	63.75	65.22	...	66.52	67.41	68.21	70.46	73.68	76.82

SOUTHAMPTON COUNTY

363915077001101. Local number 54B1. Hercules, Inc. Franklin. Virginia State Water Control Board well 46. Drilled unused artesian well in sand and gravel of Early Cretaceous age, diam 20 to 10 in (51 to 25 cm), depth 622 ft (190 m), screened 358-368 ft (109-112 m), 390-410 ft (119-125 m), 510-520 ft (155-158 m), 524-534 ft (160-163 m), 590-600 ft (180-183 m). Lsd 19.40 ft (5.913 m) above msl. MP top of recorder shelf, 3.40 ft (1.036 m) above lsd. Highest water level 129.24 ft (39.392 m), Dec. 29, 1972; lowest 179.16 ft (54.608 m), Mar. 20, 1973. Records available: 1971-74. Water level affected by local pumpage. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period April to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	134.30	131.00	131.29
10	...	...	...	...	...	...	...	...	...	140.38	131.78	135.10
15	...	...	...	...	...	...	...	156.04	...	132.12	130.89	151.02
20	...	...	...	...	...	...	137.20	152.98	132.20	136.10	150.10	135.52
25	...	...	...	...	...	...	140.00	174.60	134.62	138.20	150.94	138.90
Eom	...	...	...	...	...	...	157.90	...	135.38	133.02	150.40	156.90

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	159.80	160.10	132.56	156.10	...	...	138.33	158.45	157.92	158.80	150.68	...
10	153.48	154.52	142.30	135.01	...	...	138.72	160.25	165.82	139.14	156.90	...
15	153.55	152.00	153.62	134.40	...	...	138.44	137.65	166.00	154.44	158.55	...
20	166.85	151.14	159.18	157.60	...	...	157.28	157.71	150.40	155.24	157.69	...
25	148.53	131.55	161.28	...	...	164.20	155.85	161.16	159.40	134.24	167.59	...
Eom	151.28	132.61	137.83	...	...	163.18	156.45	160.28	137.72	132.46	...	...

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	164.88	...	171.77	...	...	175.03	172.20	168.80	...	...	170.45	175.40
10	142.45	...	156.66	...	...	176.61	...	...	...	...	173.60	167.60
15	142.60	...	167.60	...	171.32	177.20	...	...	...	...	175.40	...
20	...	...	166.57	164.75	169.65	179.16	...	...	...	...	175.65	164.55
25	...	...	133.21	...	166.63	...	170.02	...	...	...	...	171.20
Eom	...	164.50	...	...	175.44	171.23	169.03	...	...	...	...	...

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	171.80	167.38	...	166.00	171.22	...	...	...	...	...	...	...
10	...	168.05	168.18	164.12	171.82	...	...	...	...	...	...	161.25
15	171.30	167.80	168.83	166.15	...	...	...	...	...	...	...	162.89
20	169.25	165.74	...	166.20	...	...	...	...	...	...	...	162.23
25	...	164.73	169.43	170.00	...	...	...	...	...	...	...	165.22
Eom	164.10	166.95	174.40	172.12	...	...	...	...	...	...	...	...

364706077072301. Local number 54C1. Norfolk and Western Railway. Sebrell. Drilled unused artesian well in sand and gravel of pre-Miocene age, diam 10 in (25 cm), depth 344 ft (105 m), screen depth unknown. Lsd 58.4 ft (17.80 m) above msl. MP top of casing at lsd. Highest water level 15 ft (4.6 m), 1907; lowest 90.94 ft (27.719 m), July 16, 1974. Records available: 1907, 1938, 1940-46, 1948-74.

Date	Water level	Date	Water level	Date	Water level
Oct. 3, 1973	89.91	Mar. 11, 1974	89.70	Aug. 19, 1974	90.84
Nov. 1	89.42	Apr. 15	89.64	Aug. 23	90.72
Nov. 26	89.80	June 6	90.28	Aug. 28	90.48
Dec. 10	89.82	July 16	90.94		
Jan. 21, 1974	89.61	Aug. 14	90.84		

CITY OF SUFFOLK (formerly Nansemond County)

363511076492901. Local number 56A1. Virginia State Water Control Board. Near Cleopus. Virginia State Water Control Board well 47. Drilled observation artesian well in sand of Early Cretaceous age, diam 4 in (10 cm), depth 1,149.5 ft (350.4 m), screened 401-406 ft (122-124 m), 495-500 ft (151-152 m), 628-633 ft (191-193 m), 727-732 ft (222-223 m), 989-999 ft (301-304 m). Lsd 37 ft (11.3 m) above msl. MP top of casing, 1.0 ft (0.30 m) above lsd. Highest water level 101.00 ft (30.785 m), Nov. 15, 1973; lowest 115.73 ft (35.274 m), July 24, 1973. Records available: 1971-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period August to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	...	...	110.18
10	...	...	...	...	...	...	...	...	...	...	...	110.16
15	...	...	...	...	...	...	...	...	...	...	...	109.96
20	...	...	...	...	...	...	...	...	...	...	...	110.04
25	...	...	...	...	...	...	...	...	...	...	110.08	110.10
Eom	...	...	....	...	...	...	...	...	...	...	110.08	110.15

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	109.95	110.38	109.78	109.79	111.15	111.29	111.97	111.80	112.90	113.92	113.12	112.95
10	109.70	110.41	109.90	110.74	111.28	111.38	112.04	112.01	113.03	113.96	113.06	108.76
15	109.73	110.49	110.10	110.84	111.23	111.32	111.75	112.09	...	113.60	113.01	108.65
20	109.86	110.49	110.19	110.88	111.23	111.43	111.76	...	...	113.59	112.99	108.62
25	109.72	110.60	110.20	110.97	111.35	111.39	111.68	...	...	112.90	113.00	108.60
Eom	109.96	110.72	110.07	111.01	111.33	111.51	111.81	113.76	113.76	112.65	113.00	108.50

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	107.74	...	112.50	112.54	112.85	113.62	113.97	114.44	115.23	115.55	...	...
10	107.63	...	112.55	112.48	112.95	113.79	113.87	114.58	115.33	115.60	...	...
15	107.59	...	112.66	112.40	113.03	...	114.08	114.75	115.46	115.61	...	...
20	107.67	112.30	112.70	112.40	113.24	114.09	114.10	114.83	115.50	115.68	...	...
25	107.57	112.44	112.80	112.53	113.46	114.10	114.12	114.87	115.49	115.70	...	...
Eom	107.61	112.51	112.75	112.84	113.50	114.10	114.30	115.00	115.43	115.61	...	...

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	102.00	102.62	103.75	104.72	105.40	106.22	106.15	107.04	...	103.15
10	...	...	102.00	102.77	103.87	104.86	105.67	106.22	106.10	107.07	106.26	103.02
15	...	101.00	102.11	102.78	104.14	104.77	105.70	106.27	106.38	...	105.62	103.20
20	...	101.44	101.92	103.00	104.18	105.05	105.95	106.21	106.60	...	104.98	103.40
25	...	101.59	102.18	103.21	104.37	105.25	106.00	106.13	106.66	...	104.15	103.64
Eom	...	101.70	102.68	103.37	104.58	105.24	106.11	106.10	106.81	...	103.39	103.90

363408076350001. Local number 58A2. Virginia State Water Control Board. South of Cypress Chapel. Virginia State Water Control Board well 42. Drilled observation artesian well in sand of Early and Late Cretaceous age, diam 4 in (10 cm), depth 1,920 ft (585 m), screened 481-486 ft (147-148 m), 730-735 ft (223-224 m), 947-952 ft (289-290 m), 1,115-1,120 ft (340-341 m), 1,222-1,227 ft (372-374 m), 1,427-1,432 ft (435-436 m), 1,537-1,542 ft (468-470 m), 1,874-1,879 ft (571-573 m). Lsd 58 ft (17.7 m) above msl. MP top of casing, 2.0 ft (0.61 m) above lsd. Highest water level 69.56 ft (21.202 m), Apr. 20, 1972; lowest 85.28 ft (25.993 m), Aug. 24, 1972. Records available: 1971-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	...	...	73.35
10	...	...	...	...	...	...	...	...	...	...	...	73.05
15	...	...	...	...	...	...	...	...	...	...	...	72.64
20	...	...	...	...	...	...	...	...	...	...	...	72.73
25	...	...	...	...	...	...	...	...	...	...	...	72.73
Eom	...	...	...	...	...	...	...	...	...	...	...	72.55

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	72.59	72.61	73.12	72.08	70.53	70.62	70.88	69.85	69.81	...	83.89	85.11
10	72.53	72.61	73.04	71.24	70.46	70.73	70.91	70.00	69.80	...	84.60	76.17
15	72.49	72.70	72.96	71.17	70.67	70.88	71.07	69.92	69.85	...	84.64	76.28
20	72.47	72.52	72.87	71.04	70.29	70.85	69.56	69.89	69.89	81.39	84.69	76.12
25	72.20	72.69	72.73	70.99	70.69	71.48	69.76	69.99	69.79	83.03	84.94	76.52
Eom	72.31	72.55	72.36	70.82	70.64	71.57	69.99	70.03	...	83.22	85.04	76.02

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	76.34	76.30	75.81	75.25	75.61	75.30	77.95	77.65	78.54	78.88	77.44	77.80
10	76.07	76.39	76.02	75.39	75.71	75.70	77.70	77.69	78.76	78.68	77.48	77.80
15	76.15	76.30	75.80	75.40	75.45	75.88	77.63	77.59	78.88	78.78	77.47	79.10
20	76.19	76.28	75.38	75.70	75.55	75.78	77.48	77.31	78.82	78.71	77.55	79.00
25	75.92	75.85	75.63	75.82	75.70	76.00	77.41	77.14	78.71	78.75	77.61	79.00
Eom	76.19	75.80	75.45	75.80	75.42	78.25	77.54	76.91	78.60	...	77.61	79.10

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	79.14	78.75	78.57	78.51	79.03	79.10	79.08	79.30	79.83	79.84	79.71	79.83
10	79.08	78.68	78.46	78.61	79.06	79.10	79.13	79.50	79.81	79.90	79.50	79.73
15	79.09	78.75	78.46	78.80	79.20	79.07	79.00	79.72	80.10	80.03	80.22	79.83
20	79.10	78.79	78.43	78.95	79.53	78.67	79.13	79.83	79.97	80.11	79.94	79.81
25	...	78.67	78.45	78.99	79.05	79.01	79.19	79.82	79.90	79.86	79.72	79.71
Eom	78.77	78.74	78.43	78.86	79.28	78.83	79.28	79.76	80.10	79.62	79.77	79.64

CITY OF SUFFOLK (formerly Nansemond County)--Continued

364635076323201. Local number 58C1. Nestle Co. Wilroy. Virginia State Water Control Board well 4. Drilled unused artesian well in sand of Early Cretaceous age, diam 20 in (51 cm) from 0 to 455 ft (139 m), 12 in (30 cm) from 455 to 884 ft (139 to 269 m), depth 884 ft (269 m), screened 546-556 ft (166-169 m), 584-604 ft (178-184 m), 640-650 ft (195-198 m), 854-874 ft (260-266 m). Lsd about 20 ft (6 m) above msl. MP top of casing, 2.0 ft (0.61 m) above lsd. Highest water level 33.38 ft (10.174 m), Apr. 1, 1966; lowest 70.30 ft (21.427 m), Jan. 8, 1974. Records available: 1966-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	64.50	66.53	68.55	69.85	68.41	67.27	66.78	67.01	67.25	67.20	67.72	67.61
10	64.67	66.93	68.73	70.14	68.19	67.29	66.75	66.93	67.26	67.20	67.46	67.52
15	64.80	67.18	69.06	69.75	67.89	67.20	66.62	67.01	67.30	67.37	67.58	67.57
20	65.07	67.62	69.39	69.37	67.60	67.01	66.80	67.20	67.40	67.59	67.61	67.54
25	65.43	67.90	69.77	69.09	67.40	67.13	66.76	67.25	67.17	67.69	67.63	67.38
Eom	66.03	68.32	70.13	68.60	67.40	66.88	66.89	67.17	67.15	67.70	67.57	...

SURRY COUNTY

370408076460101. Local number 56E1. Buster Cox. On State Highway 617, 3.2 mi (5.1 km) southwest of Bacons Castle. Drilled unused artesian well in sand of Early Cretaceous age, diam 18 in (46 cm), depth 705 ft (215 m), six screened intervals from 401-705 ft (122-215 m). Lsd 93 ft (28.3 m) above msl. MP top edge of recorder shelf, 3.6 ft (1.10 m) above lsd. Highest water level 73.52 ft (22.409 m), Mar. 10, 1942; lowest 134.77 ft (41.078 m), Sept. 24, 25, 1974. Records available: 1942, 1969-74.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	131.59	131.89	132.09	132.05	132.31	132.48	132.49	132.78	133.06	133.49	134.16	134.64
10	131.68	132.02	...	132.06	132.26	132.59	132.61	132.71	133.02	133.56	134.18	134.48
15	131.71	...	...	132.10	132.36	132.52	132.53	132.77	133.17	133.72	134.33	134.60
20	131.80	132.11	132.04	132.17	132.35	132.48	132.74	132.93	133.31	133.89	134.41	134.68
25	131.83	132.04	132.07	132.25	132.36	132.63	132.72	132.92	133.21	133.99	134.40	134.77
Eom	131.72	132.11	132.06	132.17	132.46	132.46	132.73	132.93	133.31	134.06	134.53	134.73

370839076434901. Local number 57F1. Chippokes State Park. Virginia State Water Control Board well 40. Drilled unused artesian well in sediments of Paleocene age, diam 2 in (5 cm), depth 290 ft (88 m), screened 274-286 ft (84-87 m). Lsd 10 ft (3.0 m) above msl. MP top of casing, 1.5 ft (0.46 m) above lsd. Highest water level 39.07 ft (11.909 m), Apr. 7, 1971; lowest 50.47 ft (15.383 m), Sept. 4, 1974. Records available: 1971-74. Records furnished by the Virginia State Water Control Board.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Jan. 5, 1971	41.13	Dec. 1, 1971	42.23	Nov. 10, 1972	45.44	Oct. 12, 1973	48.24
Feb. 3	39.90	Jan. 5, 1972	42.61	Dec. 18	45.89	Nov. 19	49.21
Mar. 5	39.93	Feb. 1	42.03	Jan. 16, 1973	45.54	Jan. 8, 1974	48.29
Apr. 7	39.07	Mar. 1	42.91	Feb. 12	45.20	Feb. 7	47.40
May 4	39.70	Apr. 1	42.41	Mar. 8	45.46	Mar. 6	48.70
June 2	39.79	May 9	42.83	Apr. 10	45.51	Apr. 3	48.44
July 6	40.01	June 1	42.36	May 8	45.39	May 2	48.48
Aug. 10	41.09	July 14	44.92	June 11	46.41	June 4	48.78
Sept. 7	40.73	Aug. 1	44.21	July 9	46.94	July 3	49.17
Oct. 4	40.23	Sept. 5	44.94	Aug. 2	47.33	Aug. 2	49.90
Nov. 3	40.11	Oct. 2	45.60	Sept. 11	47.98	Sept. 4	50.47

SUSSEX COUNTY

365843077090201. Local number 53D3. Virginia State Water Control Board. South of Waverly on State Highway 40. Virginia State Water Control Board well 48. Drilled observation artesian well in sand and gravel of Early Cretaceous age, diam 6 in (15 cm), depth 554 ft (169 m), screened 279-284 ft (85-87 m), 358-363 ft (109-111 m), 439-444 ft (134-135 m). Lsd 90 ft (27.4 m) above msl. MP top of casing, 2.60 ft (0.792 m) above lsd. Highest water level 72.38 ft (22.061 m), May 22, 1972; lowest 76.51 ft (23.320 m), Sept. 24, 1974. Records available: 1971-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period August to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	...	...	...	...	...	...	...	72.73
10	...	...	...	...	...	...	...	...	...	...	...	72.77
15	...	...	...	...	...	...	...	...	...	...	...	72.80
20	...	...	...	...	...	...	...	...	...	...	...	72.91
25	...	...	...	...	...	...	...	...	...	...	...	73.00
Eom	...	...	...	...	...	...	...	...	...	...	72.63	73.03

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	72.88	...	74.27	...	...	72.70	72.62	72.60	...	...	...	73.03
10	72.61	72.68	74.33	...	...	72.79	72.60	72.51	...	72.61	72.95	73.15
15	72.70	72.67	74.34	...	...	72.65	72.54	72.39	...	72.62	72.95	73.25
20	72.80	72.71	74.08	...	...	72.68	72.59	72.41	...	72.62	72.91	73.28
25	72.55	72.77	74.02	...	...	72.55	72.50	72.45	...	72.62	72.97	73.30
Eom	72.60	72.85	74.08	...	...	72.57	72.59	72.47	...	72.70	73.06	73.16

SUSSEX COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	73.34	73.26	73.05	72.77	72.78	72.77	...	73.81	74.28	...	74.24	74.71
10	73.32	73.14	73.10	72.78	72.72	72.79	...	73.86	72.50	72.82	74.32	...
15	73.26	73.15	72.90	72.78	72.67	72.72	...	73.98	72.63	72.94	74.39	...
20	73.40	73.10	72.86	72.79	72.76	72.86	...	74.02	72.71	73.03	74.43	...
25	73.27	73.10	72.82	72.80	72.80	72.82	...	73.99	72.70	73.17	74.49	...
Eom	73.30	73.05	72.84	72.82	72.80	72.79	...	74.12	72.69	73.24	74.67	...

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	75.61	75.90	75.55	...	75.10	74.94	74.96	75.29	75.71	76.14	76.43
10	75.26	75.74	75.76	75.50	...	75.13	74.98	74.91	75.31	75.70	76.15	76.39
15	75.30	75.70	75.78	75.50	75.27	75.10	74.90	74.97	75.45	75.81	76.20	76.42
20	75.42	75.83	75.79	...	75.19	75.01	75.03	75.10	75.55	75.95	76.30	76.44
25	75.49	75.81	75.77	...	75.13	75.10	74.97	75.10	75.49	76.07	76.35	76.50
Eom	75.44	75.91	75.63	...	75.19	74.88	74.96	75.15	75.61	76.10	76.41	76.45

WESTMORELAND COUNTY

380538076490801 (revised). Local number 56N1. Washington and Lee School Board. Montross. Virginia State Water Control Board well 16. Drilled unused artesian well in sand of Early Cretaceous age, diam 4 in (10 cm) from 0 to 189 ft (58 m), 2 in (5 cm) from 189 to 641 ft (58 to 195 m), depth 641 ft (195 m), screened 608-628 ft (185-191 m). Lsd 149 ft (45 m) above msl. MP top of casing, 1.2 ft or 0.37 m (previously reported as 1.0 ft or 0.30 m) above lsd. Highest water level 133.47 ft (40.682 m), Aug. 28, 1967; lowest 148.58 ft (45.287 m), May 20, 1974. Records available: 1967-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	146.30	148.18	148.14	...	147.16	146.66	147.00	147.82	147.48	148.30	...	148.00
10	146.00	...	148.18	147.18	146.96	146.70	146.92	147.67	147.41	148.14	147.62	147.57
15	146.42	...	148.17	147.14	147.12	146.78	146.58	147.48	147.81	148.15	...	147.58
20	147.20	...	...	147.16	146.88	146.41	147.00	148.58	147.79	148.29	147.64	147.54
25	147.62	...	...	147.20	146.67	146.44	147.34	147.82	147.72	148.35	147.70	147.64
Eom	147.79	...	...	147.13	146.89	146.55	147.66	147.60	148.03	147.90	147.93	147.55

YORK COUNTY

371916076375901. Local number 57G2. U.S. Navy. Camp Peary. Virginia State Water Control Board well 3. Drilled unused artesian well in sediments of Early Cretaceous or Paleocene age, diam 10 to 8 in (25 to 20 cm), depth 387 ft (118 m), screen depth unknown. Lsd 15 ft (4.6 m) above msl. MP top of casing at lsd. Highest water level 43.09 ft (13.134 m), Mar. 7, 1968; lowest 69.90 ft (21.306 m), Sept. 30, 1974. Records available: 1968-74. Records furnished by the Virginia State Water Control Board.

Lowest water level for the day, from recorder graph, period January to September 1968

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	...	...	...	...	43.39	43.33	44.01	45.01	46.76	48.20	49.60	50.91
10	...	...	...	...	43.42	43.15	44.35	45.85	47.10	48.52	49.92	50.75
15	...	...	...	...	43.76	43.88	44.30	45.80	47.47	48.68	...	50.92
20	...	...	...	43.59	43.62	43.19	44.46	45.98	47.58	48.80	...	50.91
25	...	...	...	43.31	43.29	43.88	44.88	46.22	47.79	49.19	...	51.08
Eom	...	...	...	43.47	43.30	43.69	44.90	46.99	48.29	49.20	...	51.11

Lowest water level for the day, from recorder graph, water year October 1968 to September 1969

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	51.30	50.70	50.77	51.12	50.93	50.11	50.51	50.80	51.59	...	...	54.05
10	50.76	50.40	50.59	50.77	50.47	50.09	50.45	51.03	51.67	53.00	...	54.22
15	50.80	50.04	50.88	50.98	50.72	50.22	50.70	51.09	52.06	...	...	54.64
20	50.92	50.64	51.48	50.38	50.08	49.86	50.26	51.02	51.98	...	...	54.02
25	50.90	50.82	50.88	50.06	49.86	49.98	50.38	51.00	52.30	...	...	54.37
Eom	51.22	50.61	51.09	50.28	49.90	50.49	50.63	51.36	...	...	...	54.48

Lowest water level for the day, from recorder graph, water year October 1969 to September 1970

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	54.02	54.90	54.43	54.18	54.08	53.52	54.10	54.46	55.46	56.39	57.29	58.25
10	...	54.10	54.25	54.08	53.21	53.79	53.77	54.50	55.38	56.44	57.02	58.22
15	54.38	54.56	54.16	53.92	53.40	53.67	53.50	54.33	55.76	56.66	57.65	58.54
20	54.42	54.33	54.31	53.20	53.87	53.87	53.71	54.90	56.02	57.05	57.74	58.44
25	54.57	54.54	53.95	53.57	53.78	53.85	54.07	54.84	56.19	57.10	57.56	58.50
Eom	54.90	54.01	53.75	53.64	53.70	53.55	54.30	55.25	56.40	57.06	57.92	58.55

Lowest water level for the day, from recorder graph, water year October 1970 to September 1971

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	58.52	58.10	57.81	56.55	55.82	56.40	56.02	56.43	57.10	58.13	59.45	60.45
10	58.38	57.99	57.74	57.60	56.22	56.25	56.25	56.41	57.28	58.62	59.78	60.26
15	58.58	57.69	57.55	56.23	55.89	55.80	56.05	56.64	56.96	58.55	59.58	60.23
20	58.47	57.54	57.25	56.34	55.60	56.08	55.83	56.20	57.72	58.87	59.88	60.32
25	58.17	57.90	56.85	56.29	55.96	56.30	56.81	57.01	57.92	59.86	59.99	60.49
Eom	58.00	57.57	57.10	56.14	55.85	55.92	56.10	56.65	57.98	59.25	60.10	60.21

YORK COUNTY--Continued

Lowest water level for the day, from recorder graph, water year October 1971 to September 1972

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	60.50	...	59.45	59.10	60.26	58.40	58.90	59.36	60.23	61.40	...	...
10	...	60.04	59.16	59.75	58.91	58.83	59.19	59.17	60.67	61.84	...	...
15	...	59.83	59.42	60.00	58.66	58.43	58.99	59.57	60.87	61.80	...	...
20	...	59.72	59.32	59.95	58.92	58.73	59.42	59.36	60.28	61.84	...	...
25	...	59.59	59.65	60.02	58.34	58.57	59.15	59.58	60.67	62.05	...	...
Eom	...	59.60	59.34	60.20	58.57	58.38	...	59.92	61.11	62.40	...	63.68

Lowest water level for the day, from recorder graph, water year October 1972 to September 1973

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	63.74	63.27	62.50	61.62	61.24	60.97	61.60	62.60	64.00	65.37	66.79	...
10	64.08	63.22	62.25	61.68	60.60	61.09	63.60	62.38	64.20	65.65	67.00	...
15	63.72	63.05	61.95	61.57	61.17	61.17	62.88	62.15	64.34	66.17	67.07	67.32
20	63.76	63.15	62.43	61.18	61.13	61.70	63.02	63.09	64.64	66.18	67.05	67.55
25	63.56	63.20	61.36	61.28	61.01	61.09	62.95	62.58	64.80	66.45	...	67.56
Eom	63.45	62.86	61.54	61.31	60.65	61.62	62.65	63.67	65.21	66.66	...	67.31

Lowest water level for the day, from recorder graph, water year October 1973 to September 1974

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
5	67.49	67.20	66.29	65.40	64.84	64.65	64.35	65.46	66.40	67.83	69.12	69.63
10	67.44	67.16	66.03	65.48	64.63	64.33	64.39	65.23	66.46	67.84	68.78	69.63
15	67.70	66.84	65.87	65.45	64.28	64.18	64.10	65.46	66.59	68.20	69.25	69.89
20	67.46	66.76	65.92	65.06	64.35	64.08	64.62	65.68	67.27	68.57	69.25	69.78
25	67.06	66.48	65.78	65.07	64.67	64.37	64.75	66.00	66.82	68.47	69.48	69.58
Eom	66.92	66.70	65.46	64.69	64.59	63.26	65.00	66.07	67.47	68.58	69.67	69.90

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  Isle of Wight County..........315-316
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  King and Queen County.......... 318
  Lancaster County.......... 318
  Loudoun County.......... 318
  Louisa County.......... 319
  Middlesex County..........319-320
  Montgomery County..........320-321
  Nansemond County (See Suffolk, independent city)
  Nelson County..........321-322
  New Kent County.......... 322
  Newport News (independent city).......... 323
  Norfolk (independent city)..........323-324
  Orange County..........324-325
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      Nansemond County)..........329-330
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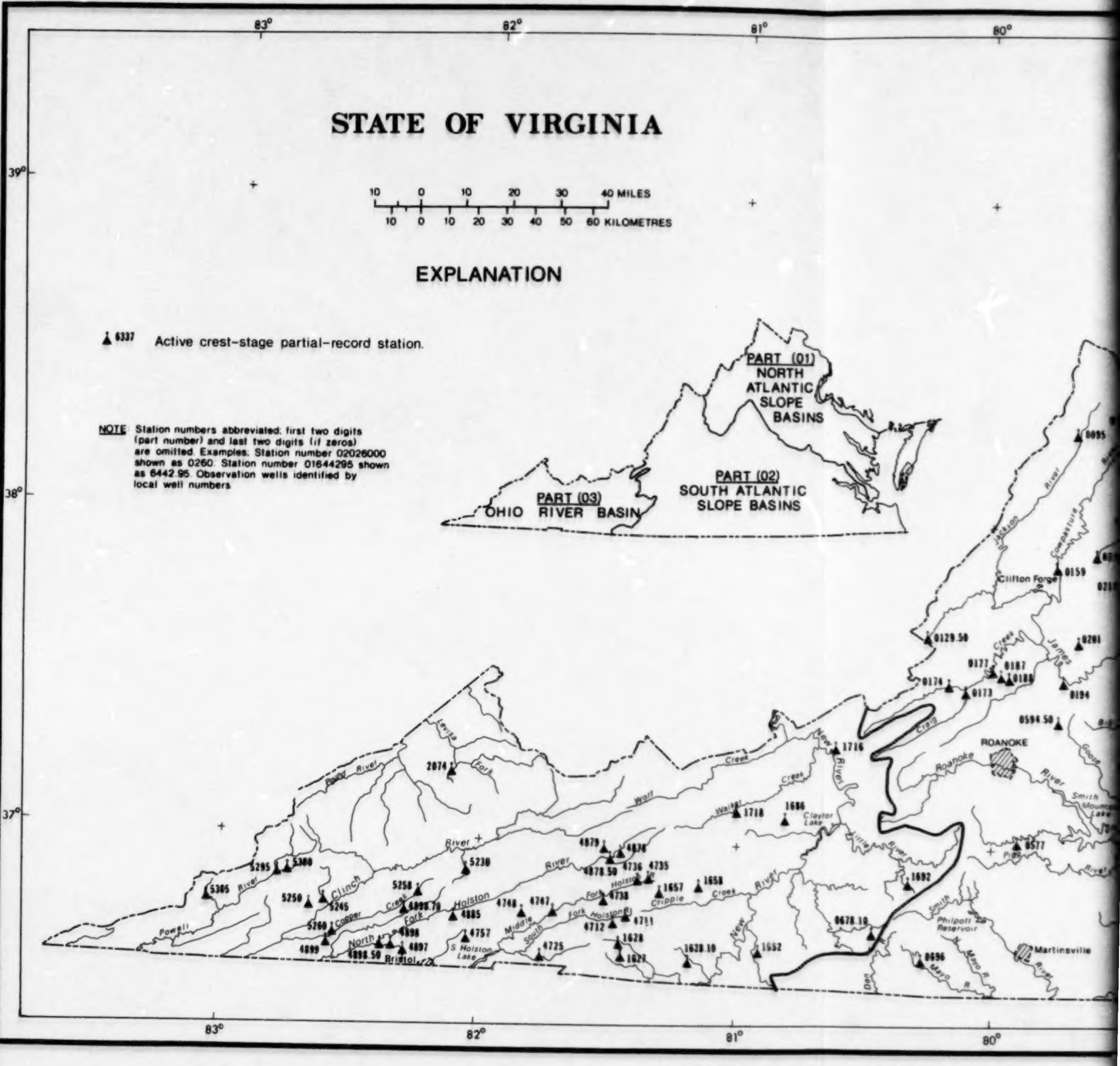
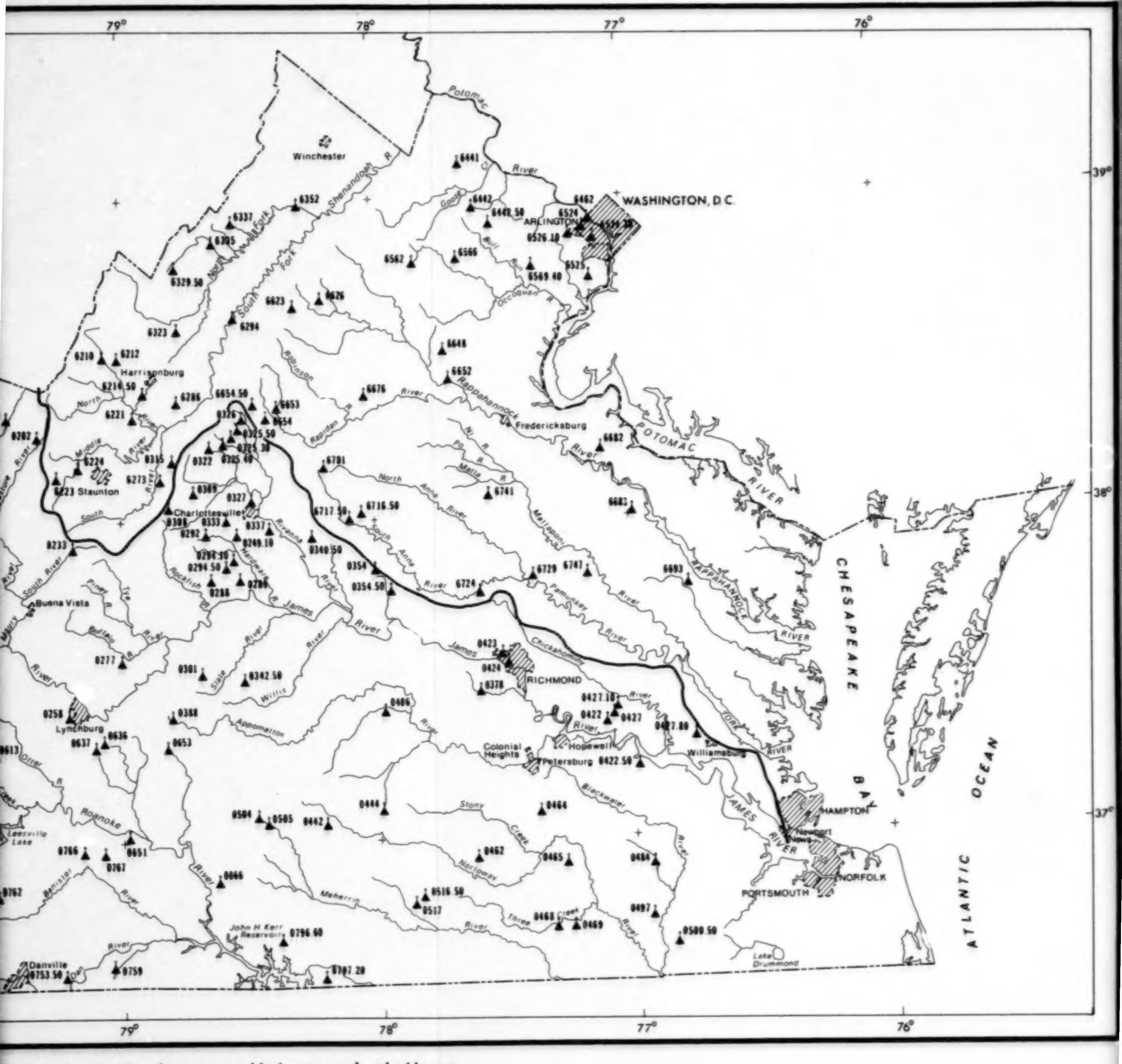
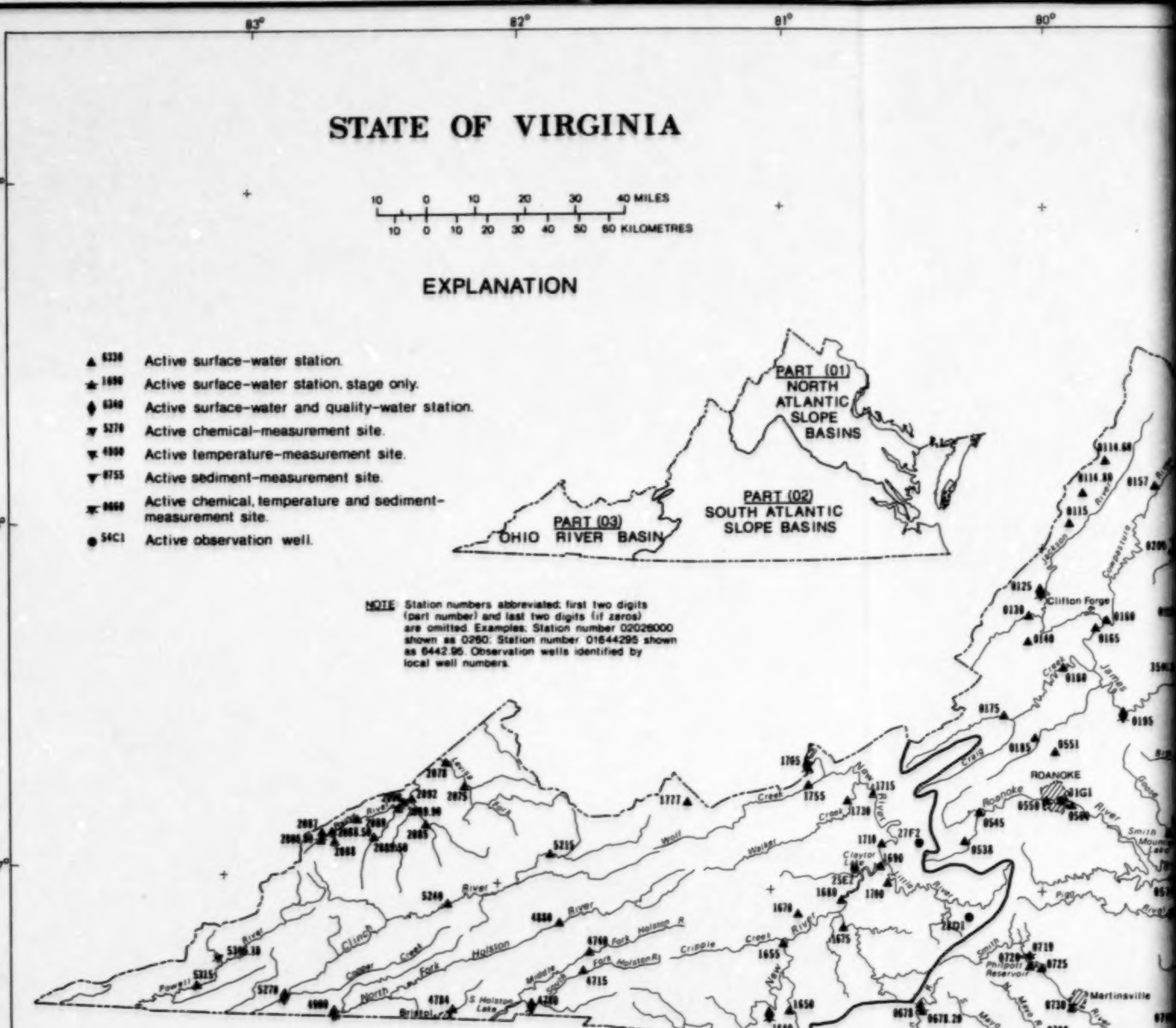

STATE OF VIRGINIA
10 0 10 20 30 40 MILES
10 0 10 20 30 40 50 60 KILOMETRES
EXPLANATION
6337 Active crest-stage partial-record station.
NOTE: Station numbers abbreviated; first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 02026000 shown as 0260. Station number 01644295 shown as 6442.95. Observation wells identified by local well numbers.
PART (01) NORTH ATLANTIC SLOPE BASINS
PART (02) SOUTH ATLANTIC SLOPE BASINS
PART (03) OHIO RIVER BASIN
83°
82°
81°
80°
39°
38°
37°
ROANOKE
Clifton Forge
Martinsville
Claytor Lake
Philpott Reservoir
S Holston Lake
Bristol
Smith Mountain Lake
Clinch River
Powell River
Pound River
Levisa Fork
Holston River
New River
Roanoke River
James River
Jackson River
Cowpasture River
Craig Creek
Wolf Creek
Walker Creek
Reed Creek
Cripple Creek
Little River
Smith River
Mayo R.
Dan River
Copper Creek
North Fork Holston
Middle Fork Holston
South Fork Holston
Goose Creek
Pigg River
0095
0159
0129.50
0201
0177
0187
0188
0174
0173
0194
0594.50
1716
1718
1686
0577
1692
0678.10
0696
1652
1628.10
1628
1627
1658
1657
4735
4736
4738
4711
4712
4870
4876
4878.50
4748
4747
4725
4757
4885
4898.70
4898
4897
4899
4898.50
5258
5230
5260
5250
5245
5305
5295
5300
2074

FIGURE 4 Map of Virginia showing loc


79°
78°
77°
76°
39°
38°
37°
Winchester
WASHINGTON, D.C.
ARLINGTON
Harrisonburg
Staunton
Charlottesville
Fredericksburg
Buena Vista
RICHMOND
Lynchburg
Colonial Heights
Petersburg
Hopewell
Williamsburg
HAMPTON
Newport News
NORFOLK
PORTSMOUTH
Danville
John H Kerr Reservoir
Leesville Lake
Lake Drummond
Potomac River
POTOMAC RIVER
Shenandoah R.
North Fork
South Fork
Goose C.
Bull Run
Occoquan R.
Robinson R.
Rapidan R.
Rappahannock River
RAPPAHANNOCK RIVER
North River
Middle River
South River
Rivanna River
Hardware R.
Rockfish R.
Tye River
Piney R.
Buffalo R.
James River
JAMES RIVER
Slate River
Willis River
Appomattox River
Chickahominy River
Ni R.
Po R.
Matta R.
Mattaponi River
North Anna River
South Anna River
Pamunkey River
YORK RIVER
Otter R.
Roanoke River
Banister River
Stony Creek
Nottoway River
Blackwater River
Meherrin River
Three Creek
CHESAPEAKE BAY
ATLANTIC OCEAN

tion of crest-stage partial-record stations.


STATE OF VIRGINIA
10 0 10 20 30 40 MILES
10 0 10 20 30 40 50 60 KILOMETRES
EXPLANATION
▲ 6330 Active surface-water station.
1690 Active surface-water station, stage only.
♦ 6340 Active surface-water and quality-water station.
5270 Active chemical-measurement site.
4900 Active temperature-measurement site.
▼ 0755 Active sediment-measurement site.
0660 Active chemical, temperature and sediment-measurement site.
● 54C1 Active observation well.
NOTE: Station numbers abbreviated: first two digits (part number) and last two digits (if zeros) are omitted. Examples: Station number 02026000 shown as 0260: Station number 01644295 shown as 6442.95. Observation wells identified by local well numbers.
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PART (02) SOUTH ATLANTIC SLOPE BASINS
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83°
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Clifton Forge
ROANOKE
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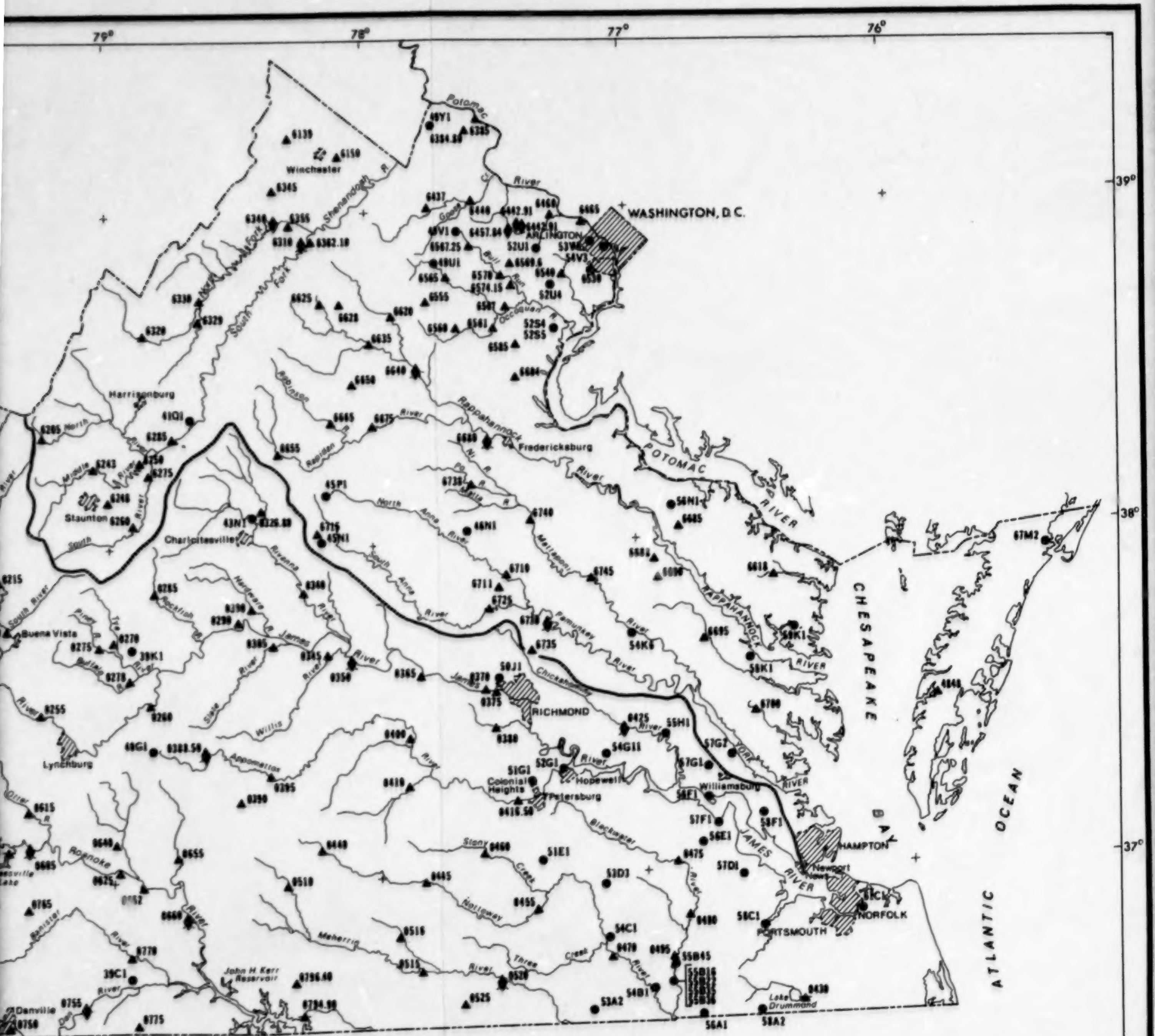
Claytor Lake
Philpott Reservoir
S Holston Lake
Smith Mountain Lake
Clinch River
Powell River
Copper Creek
North Fork Holston River
Middle Fork Holston R
South Fork Holston R
New River
Walker Creek
Wolf Creek
Craig Creek
Reed Creek
Cripple Creek
Little River
Roanoke River
James River
Jackson River
Cowpasture River
Smith River
Mayo R
Dan R
Pigg River
Goose Creek

FIGURE 3. Map of Virginia showing location of surface-water


79°
78°
77°
76°
39°
38°
37°
Potomac
River
WASHINGTON, D.C.
ARLINGTON
Winchester
Shenandoah
North Fork
South Fork
Harrisonburg
Staunton
Charlottesville
Rappahannock
Fredericksburg
POTOMAC
RIVER
RAPPAHANNOCK
RIVER
CHESAPEAKE
BAY
ATLANTIC
OCEAN
Rivanna
James
River
RICHMOND
Chickahominy
Pamunkey
Mattaponi
North Anna
South Anna
YORK
RIVER
Williamsburg
Hopewell
Colonial Heights
Petersburg
Appomattox
Willis
Slate
Buena Vista
Lynchburg
Roanoke
Otter
Blackwater
Nottoway
Stony Creek
Meherrin
Three Creek
John H. Kerr Reservoir
Danville
Banister
HAMPTON
Newport News
JAMES
RIVER
NORFOLK
PORTSMOUTH
Lake Drummond
Occoquan
Bull Run
Goose C.
Robinson
Rapidan
Tye
Piney
Buffalo
Hardware
Rockfish

d water-quality stations and ground-water observation wells.